

APPENDIX A

GRANTS PASS WATER REPORTS FOR  
BEAR CREEK SAMPLES COLLECTED ON:

11/04/2020

11/15/2020

12/17/2020

## APPENDIX A



Neilson Research Corporation  
245 S Grape St  
Medford, OR 97501  
TEL: (541) 770-5678 FAX: (541) 770-2901  
Website: [www.nrclabs.com](http://www.nrclabs.com)

January 11, 2021

Adam Smith  
Grants Pass Water Filtration  
821 SE M Street  
Grants Pass, OR 97526  
TEL: (541) 450-6119  
FAX

RE: Bear Creek Greenway Bridge by US Cell

Order No.: 20110157

Dear Adam Smith:

Neilson Research Corporation received 1 sample(s) on 11/4/2020 for the analyses presented in the following report.

The results relate only to the parameters tested or to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of Neilson Research Corporation. If you have any questions regarding these test results, please feel free to call.

Sincerely,  
Neilson Research Corporation

Tamra Schmedemann  
Senior Project Manager  
245 S Grape St  
Medford, OR 97501



Original



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Medford, OR 97501  
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Website: [www.nrclabs.com](http://www.nrclabs.com)

## Case Narrative

WO#: 20110157  
Date: 1/11/2021

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**CLIENT:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

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The analyses were performed according to the guidelines in the Neilson Research Corporation Quality Assurance Program. This report contains analytical results for the sample(s) as received by the laboratory.

Neilson Research Corporation certifies that this report is in compliance with the requirements of NELAP. No unusual difficulties were experienced during analysis of this batch except as noted below or qualified with data flags on the reports.

### GENERAL CHEMISTRY

#### Holding Time

Acceptance criteria were met

#### Digestion Exceptions:

None

#### Analysis:

- A. Method Blank(s): MB  
MB criteria were met.
- B. Matrix Spike Sample(s): MS  
MS criteria were met
- C. Duplicate Sample(s) Dup and/or MSD  
Dup and/or MSD criteria were met
- D. Lab Control Sample(s) LCS  
LCS criteria were met

EPA 1613B Dioxin Furans analysis subcontracted to Appl Labs, 908 N Temperance Ave., Clovis, CA 93611. NELAP-CA 00046. A copy of the report is attached.

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## Case Narrative

WO#: 20110157  
Date: 1/11/2021

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**CLIENT:** Grants Pass Water Filtration

**Project:** Bear Creek Greenway Bridge by US Cell

---

PFAS analysis subcontracted to Appl Labs, 908 N Temperance Ave., Clovis, CA 93611. NELAP-CA 00046. A copy of the report is attached.

Asbestos analyses performed by Lab/Cor Portland, Inc., Seattle, Washington ORELAP ID 4065. A Copy of the report is enclosed.

PBDE analysis subcontracted to ALS Life Sciences, 1435 Norjohn Court, Unit 1, Burlington, ON, Canada L7L 0E6. A copy of the report is attached.

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## Analytical Report

WO#: 20110157  
Date Reported: 1/11/2021

Grants Pass Water Filtration  
821 SE M Street  
Grants Pass, OR 97526

Lab ID: 20110157-01

Collection Date: 11/4/2020 11:35:00 AM

Received Date: 11/4/2020 11:57:00 AM

Sample Information:

Client Sample ID: Bear Creek Greenway Bridge

Sample Collector: Arlo Todd

Matrix: AQUEOUS

Source: Bear Creek

Sample Location: Grab

## Top 35 Analysis<sup>TM</sup>

| Analyses                                | Method | NELAP Status | Result   | Qual | DF | RL       | Units | EPA Limit | Date Analyzed  | Analyst |
|-----------------------------------------|--------|--------------|----------|------|----|----------|-------|-----------|----------------|---------|
| Aluminum                                | E200.7 | A            | 0.218    | *    | 1  | 0.0200   | mg/L  | 0.200     | 11/05/20 17:55 | SJS     |
| Antimony                                | E200.8 | A            | ND       |      | 1  | 0.000500 | mg/L  | 0.00600   | 11/05/20 22:14 | SJS     |
| Arsenic                                 | E200.8 | A            | 0.00126  |      | 1  | 0.00100  | mg/L  | 0.0100    | 11/05/20 22:14 | SJS     |
| Barium                                  | E200.8 | A            | 0.0577   |      | 1  | 0.000500 | mg/L  | 2.00      | 11/05/20 22:14 | SJS     |
| Beryllium                               | E200.7 | A            | ND       |      | 1  | 0.000500 | mg/L  | 0.00400   | 11/05/20 17:55 | SJS     |
| Boron                                   | E200.7 | A            | 0.672    |      | 1  | 0.0500   | mg/L  |           | 11/05/20 17:55 | SJS     |
| Cadmium                                 | E200.8 | A            | ND       |      | 1  | 0.000100 | mg/L  | 0.00500   | 11/05/20 22:14 | SJS     |
| Calcium                                 | E200.7 | A            | 47.9     |      | 1  | 1.00     | mg/L  |           | 11/05/20 17:55 | SJS     |
| Chloride                                | E300.0 | A            | 25.3     |      | 2  | 2.00     | mg/L  | 250       | 11/05/20 16:43 | KEC     |
| Chromium                                | E200.8 | A            | ND       |      | 1  | 0.00100  | mg/L  | 0.100     | 11/05/20 22:14 | SJS     |
| Copper                                  | E200.7 | A            | ND       |      | 1  | 0.0100   | mg/L  | 1.30      | 11/05/20 17:55 | SJS     |
| Fluoride                                | E300.0 | A            | ND       |      | 1  | 0.200    | mg/L  | 4.00      | 11/04/20 17:55 | KEC     |
| Hardness, Total (As CaCO <sub>3</sub> ) | A2340B | A            | 183      |      | 1  | 6.62     | mg/L  | 250       | 11/05/20 17:55 | SJS     |
| Iron                                    | E200.7 | A            | 0.335    | *    | 1  | 0.0150   | mg/L  | 0.300     | 11/05/20 17:55 | SJS     |
| Lead                                    | E200.8 | A            | 0.000233 |      | 1  | 0.000100 | mg/L  | 0.0150    | 11/05/20 22:14 | SJS     |
| Lithium                                 | E200.7 | A            | ND       |      | 1  | 0.100    | mg/L  |           | 11/05/20 17:55 | SJS     |
| Magnesium                               | E200.7 | A            | 15.3     |      | 1  | 1.00     | mg/L  |           | 11/05/20 17:55 | SJS     |
| Manganese                               | E200.7 | A            | 0.0585   | *    | 1  | 0.0200   | mg/L  | 0.0500    | 11/05/20 17:55 | SJS     |
| Molybdenum                              | E200.8 | A            | ND       |      | 1  | 0.00100  | mg/L  |           | 11/05/20 22:14 | SJS     |
| Nickel                                  | E200.8 | A            | 0.00154  |      | 1  | 0.000500 | mg/L  | 0.100     | 11/05/20 22:14 | SJS     |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

C1 Sample container temperature is out of limit as specified at testcod  
H Holding times for preparation or analysis exceeded  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

### NELAP

NELAP A Accredited. ORELAP 100016, OR-028

Original

Results are out of the EPA limits



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## Analytical Report

WO#: 20110157  
Date Reported: 1/11/2021

Grants Pass Water Filtration  
821 SE M Street  
Grants Pass, OR 97526

Lab ID: 20110157-01

Collection Date: 11/4/2020 11:35:00 AM

Received Date: 11/4/2020 11:57:00 AM

Sample Information:

Client Sample ID: Bear Creek Greenway Bridge

Sample Collector: Arlo Todd

Matrix: AQUEOUS

Source: Bear Creek

Sample Location: Grab

## Top 35 Analysis<sup>TM</sup>

| Analyses             | Method    | NELAP Status | Result   | Qual | DF | RL       | Units    | EPA Limit | Date Analyzed  | Analyst |
|----------------------|-----------|--------------|----------|------|----|----------|----------|-----------|----------------|---------|
| Nitrogen, Nitrate    | E300.0    | A            | 0.975    |      | 1  | 0.200    | mg/L     | 10.0      | 11/04/20 17:55 | KEC     |
| Nitrogen, Nitrite    | E300.0    | A            | ND       |      | 1  | 0.0500   | mg/L     | 1.00      | 11/04/20 17:55 | KEC     |
| pH                   | A4500-H+B | A            | 8.03     |      | 1  | 0.10     | pH Units | 6.50-8.50 | 11/04/20 17:18 | KEC     |
| Potassium            | E200.7    | A            | 4.07     |      | 1  | 1.00     | mg/L     |           | 11/05/20 17:55 | SJS     |
| Selenium             | E200.8    | A            | ND       |      | 1  | 0.00100  | mg/L     | 0.0500    | 11/05/20 22:14 | SJS     |
| Silica               | E200.7    | A            | 25.7     |      | 1  | 2.14     | mg/L     |           | 11/05/20 17:55 | SJS     |
| Silver               | E200.8    | A            | ND       |      | 1  | 0.000500 | mg/L     | 0.100     | 11/05/20 22:14 | SJS     |
| Sodium               | E200.7    | A            | 31.1     |      | 1  | 1.00     | mg/L     | 200       | 11/05/20 17:55 | SJS     |
| Specific Conductance | A2510B    | A            | 482      |      | 1  | 1.00     | µmhos/cm |           | 11/04/20 17:16 | KEC     |
| Sulfate              | E300.0    | A            | 24.6     |      | 2  | 1.00     | mg/L     | 250       | 11/05/20 16:43 | KEC     |
| Thallium             | E200.8    | A            | ND       |      | 1  | 0.000500 | mg/L     | 0.00200   | 11/05/20 22:14 | SJS     |
| Turbidity            | A2130     | A            | 1.52     |      | 1  | 0.100    | NTU      | 1.00-5.00 | 11/05/20 11:29 | DLM     |
| Uranium              | E200.8    | A            | 0.000866 |      | 1  | 0.000100 | mg/L     | 0.0300    | 11/05/20 22:14 | SJS     |
| Vanadium             | E200.8    | A            | ND       |      | 1  | 0.00500  | mg/L     |           | 11/05/20 22:14 | SJS     |
| Zinc                 | E200.7    | A            | ND       |      | 1  | 0.0500   | mg/L     | 5.00      | 11/05/20 17:55 | SJS     |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

C1 Sample container temperature is out of limit as specified at testcod  
H Holding times for preparation or analysis exceeded  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

### NELAP

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Original

Results are out of the EPA limits



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## Analytical Report

WO#: 20110157  
Date Reported: 1/11/2021

**CLIENT:** Grants Pass Water Filtration  
**Lab ID:** 20110157-01  
**Client Sample ID** Bear Creek Greenway Bridge  
**Project:** Bear Creek Greenway Bridge by US Cell  
**Sample Address:**

**Collection Date:** 11/4/2020 11:35:00 AM  
**Received Date:** 11/4/2020 11:57:00 AM  
**Matrix:** AQUEOUS

**Sample Location:** Grab

| Analyses               | Method     | NELAP Status | Result | Qual | DF | RL       | Units | MCL | Date Analyzed/Analyst |
|------------------------|------------|--------------|--------|------|----|----------|-------|-----|-----------------------|
| <b>PAH BY SIM</b>      |            |              |        |      |    |          |       |     |                       |
| Acenaphthene           | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/12/20 19:51 TJW    |
| Acenaphthylene         | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/12/20 19:51 TJW    |
| Anthracene             | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/12/20 19:51 TJW    |
| Benzo(a)anthracene     | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/12/20 19:51 TJW    |
| Benzo(a)pyrene         | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/12/20 19:51 TJW    |
| Benzo(b)fluoranthene   | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/12/20 19:51 TJW    |
| Benzo(g,h,i)perylene   | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/12/20 19:51 TJW    |
| Benzo(k)fluoranthene   | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/12/20 19:51 TJW    |
| Chrysene               | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/12/20 19:51 TJW    |
| Dibenz(a,h)anthracene  | EPA 8270 C | A            | ND     |      | 1  | 1.00     | µg/L  |     | 11/12/20 19:51 TJW    |
| Fluoranthene           | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/12/20 19:51 TJW    |
| Fluorene               | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/12/20 19:51 TJW    |
| Indeno(1,2,3-cd)pyrene | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/12/20 19:51 TJW    |
| Naphthalene            | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/12/20 19:51 TJW    |
| Phenanthrene           | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/12/20 19:51 TJW    |
| Pyrene                 | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/12/20 19:51 TJW    |
| Surr: 2-Fluorobiphenyl | EPA 8270 C |              | 94.1   |      | 1  | 63 - 110 | %Rec  |     | 11/12/20 19:51 TJW    |
| Surr: 4-Terphenyl-d14  | EPA 8270 C |              | 106    |      | 1  | 68 - 110 | %Rec  |     | 11/12/20 19:51 TJW    |

### VOLATILE ORGANICS BY EPA 524.2

|                                   |           |   |    |    |   |          |      |         |                    |
|-----------------------------------|-----------|---|----|----|---|----------|------|---------|--------------------|
| 1,1,1-Trichloroethane (1,1,1-TCA) | EPA 524.2 | A | ND |    | 1 | 0.000500 | mg/L | 0.200   | 11/05/20 20:31 CSB |
| 1,1,2-Trichloroethane             | EPA 524.2 | A | ND |    | 1 | 0.000500 | mg/L | 0.00500 | 11/05/20 20:31 CSB |
| 1,1-Dichloroethylene              | EPA 524.2 | A | ND |    | 1 | 0.000500 | mg/L | 0.00700 | 11/05/20 20:31 CSB |
| 1,2,4-Trichlorobenzene            | EPA 524.2 | A | ND | MI | 1 | 0.000500 | mg/L | 0.0700  | 11/05/20 20:31 CSB |
| 1,2-Dichloroethane (EDC)          | EPA 524.2 | A | ND |    | 1 | 0.000500 | mg/L | 0.00500 | 11/05/20 20:31 CSB |
| 1,2-Dichloropropane               | EPA 524.2 | A | ND |    | 1 | 0.000500 | mg/L | 0.00500 | 11/05/20 20:31 CSB |

#### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

C1 Sample container temperature is out of limit as specified at testcode  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

Original

#### NELAP

NELAP A Accredited. ORELAP 100016, OR-028





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## Analytical Report

WO#: 20110157  
Date Reported: 1/11/2021

**CLIENT:** Grants Pass Water Filtration  
**Lab ID:** 20110157-01  
**Client Sample ID** Bear Creek Greenway Bridge  
**Project:** Bear Creek Greenway Bridge by US Cell  
**Sample Address:**

**Collection Date:** 11/4/2020 11:35:00 AM  
**Received Date:** 11/4/2020 11:57:00 AM  
**Matrix:** AQUEOUS

**Sample Location:** Grab

| Analyses                              | Method    | NELAP Status | Result | Qual | DF | RL       | Units | MCL     | Date Analyzed/Analyst |
|---------------------------------------|-----------|--------------|--------|------|----|----------|-------|---------|-----------------------|
| <b>VOLATILE ORGANICS BY EPA 524.2</b> |           |              |        |      |    |          |       |         |                       |
| Benzene                               | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.00500 | 11/05/20 20:31 CSB    |
| Carbon tetrachloride                  | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.00500 | 11/05/20 20:31 CSB    |
| cis-1,2-Dichloroethene                | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.0700  | 11/05/20 20:31 CSB    |
| Dichloromethane                       | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.00500 | 11/05/20 20:31 CSB    |
| Ethylbenzene                          | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.700   | 11/05/20 20:31 CSB    |
| Monochlorobenzene                     | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.100   | 11/05/20 20:31 CSB    |
| o-Dichlorobenzene                     | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.600   | 11/05/20 20:31 CSB    |
| p-Dichlorobenzene                     | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.0750  | 11/05/20 20:31 CSB    |
| Styrene                               | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.100   | 11/05/20 20:31 CSB    |
| Tetrachloroethene (PCE)               | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.00500 | 11/05/20 20:31 CSB    |
| Toluene                               | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 1.00    | 11/05/20 20:31 CSB    |
| trans-1,2-Dichloroethylene            | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.100   | 11/05/20 20:31 CSB    |
| Trichloroethene (TCE)                 | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.00500 | 11/05/20 20:31 CSB    |
| Vinyl chloride                        | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.00200 | 11/05/20 20:31 CSB    |
| Xylenes, Total                        | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 10.0    | 11/05/20 20:31 CSB    |
| 1,1,1,2-Tetrachloroethane             | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/05/20 20:31 CSB    |
| 1,1,2,2-Tetrachloroethane             | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/05/20 20:31 CSB    |
| 1,1-Dichloroethane                    | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/05/20 20:31 CSB    |
| 1,1-Dichloropropene                   | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/05/20 20:31 CSB    |
| 1,2,3-Trichloropropane                | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/05/20 20:31 CSB    |
| 1,3-Dichloropropane                   | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/05/20 20:31 CSB    |
| 1,3-Dichloropropene                   | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/05/20 20:31 CSB    |
| 2,2-Dichloropropane                   | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/05/20 20:31 CSB    |
| Bromobenzene                          | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/05/20 20:31 CSB    |
| Bromodichloromethane                  | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/05/20 20:31 CSB    |
| Bromoform                             | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/05/20 20:31 CSB    |
| Bromomethane                          | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/05/20 20:31 CSB    |
| Chloroethane                          | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/05/20 20:31 CSB    |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

C1 Sample container temperature is out of limit as specified at testcode  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

Original

### NELAP

NELAP A Accredited. ORELAP 100016, OR-028



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## Analytical Report

WO#: 20110157  
Date Reported: 1/11/2021

**CLIENT:** Grants Pass Water Filtration  
**Lab ID:** 20110157-01  
**Client Sample ID** Bear Creek Greenway Bridge  
**Project:** Bear Creek Greenway Bridge by US Cell  
**Sample Address:**

**Collection Date:** 11/4/2020 11:35:00 AM  
**Received Date:** 11/4/2020 11:57:00 AM  
**Matrix:** AQUEOUS

**Sample Location:** Grab

| Analyses                              | Method    | NELAP Status | Result | Qual | DF | RL       | Units | MCL | Date Analyzed/Analyst |
|---------------------------------------|-----------|--------------|--------|------|----|----------|-------|-----|-----------------------|
| <b>VOLATILE ORGANICS BY EPA 524.2</b> |           |              |        |      |    |          |       |     |                       |
| Chloroform                            | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |     | 11/05/20 20:31 CSB    |
| Chloromethane                         | EPA 524.2 | A            | ND     | Q    | 1  | 0.000500 | mg/L  |     | 11/05/20 20:31 CSB    |
| Dibromochloromethane                  | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |     | 11/05/20 20:31 CSB    |
| Dibromomethane                        | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |     | 11/05/20 20:31 CSB    |
| m-Dichlorobenzene                     | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |     | 11/05/20 20:31 CSB    |
| Methyl tert-butyl ether               | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |     | 11/05/20 20:31 CSB    |
| o-Chlorotoluene                       | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |     | 11/05/20 20:31 CSB    |
| p-Chlorotoluene                       | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |     | 11/05/20 20:31 CSB    |
| Surr:                                 | EPA 524.2 |              | 110    |      | 1  | 80 - 120 | %Rec  |     | 11/05/20 20:31 CSB    |
| Dibromofluoromethane                  |           |              |        |      |    |          |       |     |                       |
| Surr: Toluene-d8                      | EPA 524.2 |              | 105    |      | 1  | 80 - 120 | %Rec  |     | 11/05/20 20:31 CSB    |
| Surr: 4-Bromofluorobenzene            | EPA 524.2 |              | 98.7   |      | 1  | 80 - 120 | %Rec  |     | 11/05/20 20:31 CSB    |

### CHLORINATED PESTICIDES/PCBS

|                                  |         |   |      |  |   |           |      |          |                   |
|----------------------------------|---------|---|------|--|---|-----------|------|----------|-------------------|
| Aldrin                           | EPA 508 | A | ND   |  | 1 | 0.0000100 | mg/L |          | 11/14/20 2:25 TJW |
| Chlordane                        | EPA 508 | A | ND   |  | 1 | 0.000250  | mg/L | 0.00200  | 11/14/20 2:25 TJW |
| Dieldrin                         | EPA 508 | A | ND   |  | 1 | 0.0000100 | mg/L |          | 11/14/20 2:25 TJW |
| Endrin                           | EPA 508 | A | ND   |  | 1 | 0.0000100 | mg/L | 0.00200  | 11/14/20 2:25 TJW |
| gamma-BHC (Lindane)              | EPA 508 | A | ND   |  | 1 | 0.0000100 | mg/L | 0.000200 | 11/14/20 2:25 TJW |
| Heptachlor                       | EPA 508 | A | ND   |  | 1 | 0.0000100 | mg/L | 0.000400 | 11/14/20 2:25 TJW |
| Heptachlor epoxide               | EPA 508 | A | ND   |  | 1 | 0.0000100 | mg/L | 0.000200 | 11/14/20 2:25 TJW |
| Methoxychlor                     | EPA 508 | A | ND   |  | 1 | 0.000100  | mg/L | 0.0400   | 11/14/20 2:25 TJW |
| Polychlorinated Biphenyls (PCBs) | EPA 508 | A | ND   |  | 1 | 0.000250  | mg/L | 0.000500 | 11/14/20 2:25 TJW |
| Toxaphene                        | EPA 508 | A | ND   |  | 1 | 0.000300  | mg/L | 0.00300  | 11/14/20 2:25 TJW |
| Surr: Decachlorobiphenyl         | EPA 508 |   | 94.5 |  | 1 | 70 - 130  | %Rec |          | 11/14/20 2:25 TJW |

#### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

C1 Sample container temperature is out of limit as specified at testcode  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

Original

#### NELAP

NELAP A Accredited. ORELAP 100016, OR-028



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## Analytical Report

WO#: 20110157  
Date Reported: 1/11/2021

**CLIENT:** Grants Pass Water Filtration  
**Lab ID:** 20110157-01  
**Client Sample ID** Bear Creek Greenway Bridge  
**Project:** Bear Creek Greenway Bridge by US Cell  
**Sample Address:**

**Collection Date:** 11/4/2020 11:35:00 AM  
**Received Date:** 11/4/2020 11:57:00 AM  
**Matrix:** AQUEOUS

**Sample Location:** Grab

| Analyses                       | Method    | NELAP Status | Result | Qual | DF | RL       | Units     | MCL     | Date Analyzed/Analyst |
|--------------------------------|-----------|--------------|--------|------|----|----------|-----------|---------|-----------------------|
| <b>MERCURY BY EPA 245.1</b>    |           |              |        |      |    |          |           |         |                       |
| Mercury                        | EPA 245.1 | A            | ND     |      | 1  | 0.000200 | mg/L      | 0.00200 | 11/11/20 15:03 KMC    |
| <b>BACTERIA BY QUANTI-TRAY</b> |           |              |        |      |    |          |           |         |                       |
| E. Coli Bacteria               | SM 9223 B | A            | 488    |      | 1  | 1.00     | MPN/100mL |         | 11/04/20 13:24 CEM    |
| <b>DIOXINS/FURANS</b>          |           |              |        |      |    |          |           |         |                       |
| Dioxins                        | EPA 1613B | See Attached | SC     | 1    |    | 0        | pg/L      |         | 11/20/20 0:00 TAK     |
| Furans                         | EPA 1613B | See Attached | SC     | 1    |    | 0        | pg/L      |         | 11/20/20 0:00 TAK     |
| <b>CYANIDE, TOTAL</b>          |           |              |        |      |    |          |           |         |                       |
| Cyanide, Total                 | EPA 335.4 | A            | ND     | Q    | 1  | 0.00500  | mg/L      |         | 11/06/20 11:25 SCM    |
| <b>TOTAL KJELDAHL NITROGEN</b> |           |              |        |      |    |          |           |         |                       |
| Nitrogen, Kjeldahl, Total      | EPA 351.2 | A            | ND     |      | 1  | 0.625    | mg/L      |         | 11/06/20 16:02 KEC    |
| <b>SUB MISCELLANEOUS</b>       |           |              |        |      |    |          |           |         |                       |
| TEM Water Amphibole            | SUB-MISC  | See Attached | SC     | 1    |    | 0        |           |         | 11/10/20 0:00 TAK     |
| TEM Water Chrysotile           | SUB-MISC  | See Attached | SC     | 1    |    | 0        |           |         | 11/10/20 0:00 TAK     |
| TEM Water Total                | SUB-MISC  | See Attached | SC     | 1    |    | 0        |           |         | 11/10/20 0:00 TAK     |
| <b>SUB MISCELLANEOUS</b>       |           |              |        |      |    |          |           |         |                       |
| PFAS                           | SUB-MISC  | See Attached | SC     | 1    |    |          | ng/L      |         | 11/20/20 0:00 TAK     |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

C1 Sample container temperature is out of limit as specified at testcode  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

Original

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## Analytical Report

WO#: 20110157  
Date Reported: 1/11/2021

**CLIENT:** Grants Pass Water Filtration  
**Lab ID:** 20110157-01  
**Client Sample ID:** Bear Creek Greenway Bridge  
**Project:** Bear Creek Greenway Bridge by US Cell  
**Sample Address:**

**Collection Date:** 11/4/2020 11:35:00 AM  
**Received Date:** 11/4/2020 11:57:00 AM  
**Matrix:** AQUEOUS

**Sample Location:** Grab

| Analyses                                  | Method      | NELAP Status | Result       | Qual | DF | RL     | Units | MCL | Date Analyzed/Analyst |
|-------------------------------------------|-------------|--------------|--------------|------|----|--------|-------|-----|-----------------------|
| <b>SUB MISCELLANEOUS</b>                  |             |              |              |      |    |        |       |     |                       |
| PBDEs                                     | SUB-MISC    |              | See Attached | SC   | 1  |        | pg/L  |     | 12/31/20 20:20 TAK    |
| <b>TOTAL ORGANIC CARBON</b>               |             |              |              |      |    |        |       |     |                       |
| Organic Carbon, Total                     | SM 5310 C   | A            | 2.82         |      | 1  | 0.100  | mg/L  |     | 11/09/20 19:04 SJS    |
| <b>TOTAL ALKALINITY</b>                   |             |              |              |      |    |        |       |     |                       |
| Alkalinity, Total (As CaCO <sub>3</sub> ) | SM 2320B    | A            | 176          |      | 1  | 10.0   | mg/L  |     | 11/09/20 11:22 DLM    |
| <b>TOTAL PHOSPHORUS AS P</b>              |             |              |              |      |    |        |       |     |                       |
| Phosphorus, Total (As P)                  | SM 4500-P E | A            | 0.0767       |      | 1  | 0.0250 | mg/L  |     | 11/05/20 16:28 DLM    |
| <b>TOTAL SUSPENDED SOLIDS</b>             |             |              |              |      |    |        |       |     |                       |
| Total Suspended Solids                    | SM 2540 D   | A            | 6.00         | R4   | 1  | 2.00   | mg/L  |     | 11/10/20 13:30 DLM    |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

C1 Sample container temperature is out of limit as specified at testcode  
H Holding times for preparation or analysis exceeded  
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# QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** ALK

|                              |                  |               |             |                          |                                                        |
|------------------------------|------------------|---------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: MB-R15895         | SampleType: MBLK | TestCode: ALK | Units: mg/L | Prep Date:               | RunNo: 15895                                           |
| Client ID: PBW               | Batch ID: R15895 | TestNo: A2320 |             | Analysis Date: 11/9/2020 | SeqNo: 241514                                          |
| Analyte                      | Result           | PQL           | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Alkalinity, Total (As CaCO3) | ND               | 10.0          |             |                          |                                                        |

|                              |                  |               |             |                          |                                                        |
|------------------------------|------------------|---------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: LCS-R15895        | SampleType: LCS  | TestCode: ALK | Units: mg/L | Prep Date:               | RunNo: 15895                                           |
| Client ID: LCSW              | Batch ID: R15895 | TestNo: A2320 |             | Analysis Date: 11/9/2020 | SeqNo: 241515                                          |
| Analyte                      | Result           | PQL           | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Alkalinity, Total (As CaCO3) | 50.0             | 10.0          | 50.00       | 0                        | 100 80 120                                             |

|                               |                  |               |             |                          |                                                        |
|-------------------------------|------------------|---------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: 20110374-01ADUP    | SampleType: DUP  | TestCode: ALK | Units: mg/L | Prep Date:               | RunNo: 15895                                           |
| Client ID: Bear Creek Greenwa | Batch ID: R15895 | TestNo: A2320 |             | Analysis Date: 11/9/2020 | SeqNo: 241518                                          |
| Analyte                       | Result           | PQL           | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Alkalinity, Total (As CaCO3)  | 176              | 10.0          |             |                          | 176.0 0 10                                             |

|                              |                  |               |             |                          |                                                        |
|------------------------------|------------------|---------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: 20110374-01ADUP   | SampleType: DUP  | TestCode: ALK | Units: mg/L | Prep Date:               | RunNo: 15895                                           |
| Client ID: BatchQC           | Batch ID: R15895 | TestNo: A2320 |             | Analysis Date: 11/9/2020 | SeqNo: 241528                                          |
| Analyte                      | Result           | PQL           | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Alkalinity, Total (As CaCO3) | 34.0             | 10.0          |             |                          | 34.00 0 10                                             |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
H Holding times for preparation or analysis exceeded  
PL Permit Limit  
C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit  
E Value above quantitation range  
ND Not Detected at the Reporting Limit

Original



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# QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** CYANIDE\_W

|                    |                |                     |             |                          |                                                        |
|--------------------|----------------|---------------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: MB-7573 | SampType: MBLK | TestCode: CYANIDE_W | Units: mg/L | Prep Date: 11/5/2020     | RunNo: 15906                                           |
| Client ID: PBW     | Batch ID: 7573 | TestNo: E335.4      | E335.4      | Analysis Date: 11/6/2020 | SeqNo: 241649                                          |
| Analyte            | Result         | PQL                 | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Cyanide, Total     | ND             | 0.00500             |             |                          |                                                        |

|                     |                |                     |             |                          |                                                        |
|---------------------|----------------|---------------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: LCS-7573 | SampType: LCS  | TestCode: CYANIDE_W | Units: mg/L | Prep Date: 11/5/2020     | RunNo: 15906                                           |
| Client ID: LCSW     | Batch ID: 7573 | TestNo: E335.4      | E335.4      | Analysis Date: 11/6/2020 | SeqNo: 241651                                          |
| Analyte             | Result         | PQL                 | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Cyanide, Total      | 0.0362         | 0.00500             | 0           | 90.5                     | 90 110                                                 |

|                           |                |                     |             |                          |                                                        |
|---------------------------|----------------|---------------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: 20110116-01BMS | SampType: MS   | TestCode: CYANIDE_W | Units: mg/L | Prep Date: 11/5/2020     | RunNo: 15907                                           |
| Client ID: BatchQC        | Batch ID: 7573 | TestNo: E335.4      | E335.4      | Analysis Date: 11/6/2020 | SeqNo: 241669                                          |
| Analyte                   | Result         | PQL                 | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Cyanide, Total            | 0.830          | 0.100               | 0.04000     | 0.7060                   | 310 80 120                                             |

|                            |                |                     |             |                          |                                                        |
|----------------------------|----------------|---------------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: 20110116-01BMSD | SampType: MSD  | TestCode: CYANIDE_W | Units: mg/L | Prep Date: 11/5/2020     | RunNo: 15907                                           |
| Client ID: BatchQC         | Batch ID: 7573 | TestNo: E335.4      | E335.4      | Analysis Date: 11/6/2020 | SeqNo: 241670                                          |
| Analyte                    | Result         | PQL                 | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Cyanide, Total             | 0.766          | 0.100               | 0.04000     | 0.7060                   | 150 80 120 0.8300 8.02 20                              |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level, Holding times for preparation or analysis exceeded  
H Permit Limit  
PL  
C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit  
E Value above quantitation range  
ND Not Detected at the Reporting Limit

Original



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# QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA508\_DW

|                          |                 |                     |             |                           |               |          |           |             |      |          |      |
|--------------------------|-----------------|---------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: LCS-7615      | SampleType: LCS | TestCode: EPA508_DW | Units: mg/L | Prep Date: 11/9/2020      | RunNo: 17032  |          |           |             |      |          |      |
| Client ID: LCSW          | Batch ID: 7615  | TestNo: E508        | E508        | Analysis Date: 11/14/2020 | SeqNo: 244778 |          |           |             |      |          |      |
| Analyte                  | Result          | PQL                 | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Aldrin                   | 0.000143        | 0.0000100           | 0.0002000   | 0                         | 71.6          | 70       | 130       |             |      |          |      |
| Dieldrin                 | 0.000179        | 0.0000100           | 0.0002000   | 0                         | 89.5          | 70       | 130       |             |      |          |      |
| Endrin                   | 0.000142        | 0.0000100           | 0.0002000   | 0                         | 71.1          | 70       | 130       |             |      |          |      |
| gamma-BHC (Lindane)      | 0.000178        | 0.0000100           | 0.0002000   | 0                         | 89.2          | 70       | 130       |             |      |          |      |
| Heptachlor               | 0.000165        | 0.0000100           | 0.0002000   | 0                         | 82.4          | 70       | 130       |             |      |          |      |
| Heptachlor epoxide       | 0.000174        | 0.0000100           | 0.0002000   | 0                         | 87.2          | 70       | 130       |             |      |          |      |
| Methoxychlor             | 0.000186        | 0.0000100           | 0.0002000   | 0                         | 93.0          | 70       | 130       |             |      |          |      |
| Surr: Decachlorobiphenyl | 0.000222        |                     | 0.0002500   |                           | 88.8          | 70       | 130       |             |      |          |      |

|                          |  |                  |  |                     |           |             |      |                           |           |               |      |          |      |
|--------------------------|--|------------------|--|---------------------|-----------|-------------|------|---------------------------|-----------|---------------|------|----------|------|
| Sample ID: LCS-7615-TOX  |  | SampleType: LCS3 |  | TestCode: EPA508_DW |           | Units: mg/L |      | Prep Date: 11/9/2020      |           | RunNo: 17032  |      |          |      |
| Client ID: BatchQC       |  | Batch ID: 7615   |  | TestNo: E508        |           | E508        |      | Analysis Date: 11/14/2020 |           | SeqNo: 244779 |      |          |      |
| Analyte                  |  | Result           |  | PQL                 | SPK value | SPK Ref Val | %REC | LowLimit                  | HighLimit | RPD Ref Val   | %RPD | RPDLimit | Qual |
| Toxaphene                |  | 0.00249          |  | 0.000300            | 0.002500  | 0           | 99.4 | 70                        | 130       |               |      |          |      |
| Surr: Decachlorobiphenyl |  | 0.000224         |  |                     | 0.0002500 |             | 89.6 | 70                        | 130       |               |      |          |      |

|                           |          |                |                     |             |                           |               |           |             |      |          |      |
|---------------------------|----------|----------------|---------------------|-------------|---------------------------|---------------|-----------|-------------|------|----------|------|
| Sample ID: 20110079-01AMS |          | SampleType: MS | TestCode: EPA508_DW | Units: mg/L | Prep Date: 11/9/2020      | RunNo: 17032  |           |             |      |          |      |
| Client ID: BatchQC        |          | Batch ID: 7615 | TestNo: E508        | E508        | Analysis Date: 11/14/2020 | SeqNo: 244781 |           |             |      |          |      |
| Analyte                   | Result   | PQL            | SPK value           | SPK Ref Val | %REC                      | LowLimit      | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Aldrin                    | 0.000140 | 0.0000100      | 0.0002000           | 0           | 69.9                      | 70            | 130       |             |      |          | MI   |
| Dieldrin                  | 0.000160 | 0.0000100      | 0.0002000           | 0           | 79.8                      | 70            | 130       |             |      |          |      |
| Endrin                    | 0.000131 | 0.0000100      | 0.0002000           | 0           | 65.4                      | 70            | 130       |             |      |          | MI   |

**Qualifiers:**  
\* Value exceeds Maximum Contaminant Level  
H Holding times for preparation or analysis exceeded  
PL Permit Limit

C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit

E Value above quantitation range  
ND Not Detected at the Reporting Limit

Original



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# QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell  
**TestCode:** EPA508\_DW

|                           |  |                |           |                     |             |             |          |                           |             |               |          |      |
|---------------------------|--|----------------|-----------|---------------------|-------------|-------------|----------|---------------------------|-------------|---------------|----------|------|
| Sample ID: 20110079-01AMS |  | SampType: MS   |           | TestCode: EPA508_DW |             | Units: mg/L |          | Prep Date: 11/9/2020      |             | RunNo: 17032  |          |      |
| Client ID: BatchQC        |  | Batch ID: 7615 |           | TestNo: E508        |             | E508        |          | Analysis Date: 11/14/2020 |             | SeqNo: 244781 |          |      |
| Analyte                   |  | Result         | PQL       | SPK value           | SPK Ref Val | %REC        | LowLimit | HighLimit                 | RPD Ref Val | %RPD          | RPDLimit | Qual |
| gamma-BHC (Lindane)       |  | 0.000158       | 0.0000100 | 0.0002000           | 0           | 79.1        | 70       | 130                       |             |               |          |      |
| Heptachlor                |  | 0.000155       | 0.0000100 | 0.0002000           | 0           | 77.5        | 70       | 130                       |             |               |          |      |
| Heptachlor epoxide        |  | 0.000155       | 0.0000100 | 0.0002000           | 0           | 77.5        | 70       | 130                       |             |               |          |      |
| Methoxychlor              |  | 0.000187       | 0.000100  | 0.0002000           | 0           | 93.7        | 70       | 130                       |             |               |          |      |
| Surr: Decachlorobiphenyl  |  | 0.000220       |           | 0.0002500           |             | 87.9        | 70       | 130                       |             |               |          |      |

|                            |          |                |           |                     |      |             |           |                           |      |               |      |
|----------------------------|----------|----------------|-----------|---------------------|------|-------------|-----------|---------------------------|------|---------------|------|
| Sample ID: 20110079-01AMSD |          | SampType: MSD  |           | TestCode: EPA508_DW |      | Units: mg/L |           | Prep Date: 11/9/2020      |      | RunNo: 17032  |      |
| Client ID: BatchQC         |          | Batch ID: 7615 |           | TestNo: E508        |      | E508        |           | Analysis Date: 11/14/2020 |      | SeqNo: 244782 |      |
| Analyte                    | Result   | PQL            | SPK value | SPK Ref Val         | %REC | LowLimit    | HighLimit | RPD Ref Val               | %RPD | RPDLimit      | Qual |
| Aldrin                     | 0.000146 | 0.0000100      | 0.0002000 | 0                   | 73.1 | 70          | 130       | 0.0001397                 | 4.60 | 20            |      |
| Dieldrin                   | 0.000162 | 0.0000100      | 0.0002000 | 0                   | 81.2 | 70          | 130       | 0.0001596                 | 1.79 | 20            |      |
| Endrin                     | 0.000136 | 0.0000100      | 0.0002000 | 0                   | 68.2 | 70          | 130       | 0.0001308                 | 4.21 | 20            | MI   |
| gamma-BHC (Lindane)        | 0.000160 | 0.0000100      | 0.0002000 | 0                   | 80.1 | 70          | 130       | 0.0001582                 | 1.32 | 20            |      |
| Heptachlor                 | 0.000161 | 0.0000100      | 0.0002000 | 0                   | 80.4 | 70          | 130       | 0.0001550                 | 3.68 | 20            |      |
| Heptachlor epoxide         | 0.000158 | 0.0000100      | 0.0002000 | 0                   | 79.2 | 70          | 130       | 0.0001551                 | 2.13 | 20            |      |
| Methoxychlor               | 0.000196 | 0.000100       | 0.0002000 | 0                   | 97.9 | 70          | 130       | 0.0001873                 | 4.41 | 20            |      |
| Surr: Decachlorobiphenyl   | 0.000177 |                | 0.0002500 |                     | 70.8 | 70          | 130       |                           | 0    |               |      |

|                    |                |              |                     |             |                           |               |           |             |      |          |      |
|--------------------|----------------|--------------|---------------------|-------------|---------------------------|---------------|-----------|-------------|------|----------|------|
| Sample ID: MB-7615 | SampType: MBLK |              | TestCode: EPA508_DW | Units: mg/L | Prep Date: 11/9/2020      | RunNo: 17032  |           |             |      |          |      |
| Client ID: PBW     | Batch ID: 7615 | TestNo: E508 | E508                |             | Analysis Date: 11/14/2020 | SeqNo: 244823 |           |             |      |          |      |
| Analyte            | Result         | PQL          | SPK value           | SPK Ref Val | %REC                      | LowLimit      | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

| Qualifiers:                                          | * Value exceeds Maximum Contaminant Level                     | C1 Sample container temperature is out of limit as specified at testcode | E Value above quantitation range |
|------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------|
| H Holding times for preparation or analysis exceeded | MI Recovery outside control limits due to Matrix Interference | ND                                                                       | ND                               |
| PL Permit Limit                                      | RL Reporting Detection Limit                                  |                                                                          |                                  |

Original





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## QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA508\_DW

|                                  |                |                     |             |                           |               |          |           |             |      |          |      |
|----------------------------------|----------------|---------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: MB-7615               | SampType: MBLK | TestCode: EPA508_DW | Units: mg/L | Prep Date: 11/9/2020      | RunNo: 17032  |          |           |             |      |          |      |
| Client ID: PBW                   | Batch ID: 7615 | TestNo: E508        | E508        | Analysis Date: 11/14/2020 | SeqNo: 244823 |          |           |             |      |          |      |
| Analyte                          | Result         | PQL                 | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Aldrin                           | ND             | 0.0000100           |             |                           |               |          |           |             |      |          |      |
| Chlordane                        | ND             | 0.000250            |             |                           |               |          |           |             |      |          |      |
| Dieldrin                         | ND             | 0.0000100           |             |                           |               |          |           |             |      |          |      |
| Endrin                           | ND             | 0.0000100           |             |                           |               |          |           |             |      |          |      |
| gamma-BHC (Lindane)              | ND             | 0.0000100           |             |                           |               |          |           |             |      |          |      |
| Heptachlor                       | ND             | 0.0000100           |             |                           |               |          |           |             |      |          |      |
| Heptachlor epoxide               | ND             | 0.0000100           |             |                           |               |          |           |             |      |          |      |
| Methoxychlor                     | ND             | 0.000100            |             |                           |               |          |           |             |      |          |      |
| Polychlorinated Biphenyls (PCBs) | ND             | 0.000250            |             |                           |               |          |           |             |      |          |      |
| Toxaphene                        | ND             | 0.000300            |             |                           |               |          |           |             |      |          |      |
| Surr: Decachlorobiphenyl         | 0.000215       |                     | 0.0002500   |                           |               | 86.0     | 70        | 130         |      |          |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level.  
H Holding times for preparation or analysis exceeded  
PL Permit Limit

C.1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit

E Value above quantitation range  
ND Not Detected at the Reporting Limit

Original



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# QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

| Sample ID: LCS                    | SampType: LCS    | TestCode: EPA524.2_D | Units: mg/L | Prep Date:               | RunNo: 15813  |          |           |             |      |          |      |
|-----------------------------------|------------------|----------------------|-------------|--------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Client ID: LCSW                   | Batch ID: R15813 | TestNo: E524.2       |             | Analysis Date: 11/5/2020 | SeqNo: 240583 |          |           |             |      |          |      |
| Analyte                           | Result           | PQL                  | SPK value   | SPK Ref Val              | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| 1,1,1-Trichloroethane (1,1,1-TCA) | 0.0219           | 0.000500             | 0.02000     | 0                        | 109           | 70       | 130       |             |      |          |      |
| 1,1,2-Trichloroethane             | 0.0211           | 0.000500             | 0.02000     | 0                        | 106           | 70       | 130       |             |      |          |      |
| 1,1-Dichloroethylene              | 0.0214           | 0.000500             | 0.02000     | 0                        | 107           | 70       | 130       |             |      |          |      |
| 1,2,4-Trichlorobenzene            | 0.0168           | 0.000500             | 0.02000     | 0                        | 83.9          | 70       | 130       |             |      |          |      |
| 1,2-Dichloroethane (EDC)          | 0.0205           | 0.000500             | 0.02000     | 0                        | 102           | 70       | 130       |             |      |          |      |
| 1,2-Dichloropropane               | 0.0212           | 0.000500             | 0.02000     | 0                        | 106           | 70       | 130       |             |      |          |      |
| Benzene                           | 0.0207           | 0.000500             | 0.02000     | 0                        | 104           | 70       | 130       |             |      |          |      |
| Carbon tetrachloride              | 0.0207           | 0.000500             | 0.02000     | 0                        | 103           | 70       | 130       |             |      |          |      |
| cis-1,2-Dichloroethene            | 0.0226           | 0.000500             | 0.02000     | 0                        | 113           | 70       | 130       |             |      |          |      |
| Dichloromethane                   | 0.0232           | 0.000500             | 0.02000     | 0                        | 116           | 70       | 130       |             |      |          |      |
| Ethylbenzene                      | 0.0212           | 0.000500             | 0.02000     | 0                        | 106           | 70       | 130       |             |      |          |      |
| Monochlorobenzene                 | 0.0210           | 0.000500             | 0.02000     | 0                        | 105           | 70       | 130       |             |      |          |      |
| o-Dichlorobenzene                 | 0.0205           | 0.000500             | 0.02000     | 0                        | 102           | 70       | 130       |             |      |          |      |
| p-Dichlorobenzene                 | 0.0198           | 0.000500             | 0.02000     | 0                        | 99.1          | 70       | 130       |             |      |          |      |
| Styrene                           | 0.0210           | 0.000500             | 0.02000     | 0                        | 105           | 70       | 130       |             |      |          |      |
| Tetrachloroethene (PCE)           | 0.0207           | 0.000500             | 0.02000     | 0                        | 103           | 70       | 130       |             |      |          |      |
| Toluene                           | 0.0217           | 0.000500             | 0.02000     | 0                        | 108           | 70       | 130       |             |      |          |      |
| trans-1,2-Dichloroethylene        | 0.0233           | 0.000500             | 0.02000     | 0                        | 116           | 70       | 130       |             |      |          |      |
| Trichloroethene (TCE)             | 0.0216           | 0.000500             | 0.02000     | 0                        | 108           | 70       | 130       |             |      |          |      |
| Vinyl chloride                    | 0.0233           | 0.000500             | 0.02000     | 0                        | 117           | 70       | 130       |             |      |          |      |
| Xylenes, Total                    | 0.0665           | 0.000500             | 0.06000     | 0                        | 111           | 70       | 130       |             |      |          |      |
| 1,1,1,2-Tetrachloroethane         | 0.0210           | 0.000500             | 0.02000     | 0                        | 105           | 70       | 130       |             |      |          |      |
| 1,1,2,2-Tetrachloroethane         | 0.0194           | 0.000500             | 0.02000     | 0                        | 97.0          | 70       | 130       |             |      |          |      |
| 1,1-Dichloroethane                | 0.0222           | 0.000500             | 0.02000     | 0                        | 111           | 70       | 130       |             |      |          |      |
| 1,1-Dichloropropene               | 0.0213           | 0.000500             | 0.02000     | 0                        | 107           | 70       | 130       |             |      |          |      |
| 1,2,3-Trichloropropane            | 0.0187           | 0.000500             | 0.02000     | 0                        | 93.7          | 70       | 130       |             |      |          |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
H Holding times for preparation or analysis exceeded  
PL Permit Limit  
C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit  
E Value above quantitation range  
ND Not Detected at the Reporting Limit

Original



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# QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

| Sample ID: LCS             | SampleType: LCS  | TestCode: EPA524.2_D | Units: mg/L | Prep Date:               | RunNo: 15813  |          |           |             |      |          |      |
|----------------------------|------------------|----------------------|-------------|--------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Client ID: LCSW            | Batch ID: R15813 | TestNo: E524.2       |             | Analysis Date: 11/5/2020 | SeqNo: 240583 |          |           |             |      |          |      |
| Analyte                    | Result           | PQL                  | SPK value   | SPK Ref Val              | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| 1,3-Dichloropropane        | 0.0201           | 0.000500             | 0.02000     | 0                        | 100           | 70       | 130       |             |      |          |      |
| 1,3-Dichloropropene        | 0.0424           | 0.000500             | 0.04000     | 0                        | 106           | 70       | 130       |             |      |          |      |
| 2,2-Dichloropropane        | 0.0225           | 0.000500             | 0.02000     | 0                        | 112           | 70       | 130       |             |      |          |      |
| Bromobenzene               | 0.0207           | 0.000500             | 0.02000     | 0                        | 104           | 70       | 130       |             |      |          |      |
| Bromodichloromethane       | 0.0211           | 0.000500             | 0.02000     | 0                        | 106           | 70       | 130       |             |      |          |      |
| Bromoform                  | 0.0198           | 0.000500             | 0.02000     | 0                        | 98.8          | 70       | 130       |             |      |          |      |
| Bromomethane               | 0.0198           | 0.000500             | 0.02000     | 0                        | 98.8          | 70       | 130       |             |      |          |      |
| Chloroethane               | 0.0194           | 0.000500             | 0.02000     | 0                        | 97.2          | 70       | 130       |             |      |          |      |
| Chloroform                 | 0.0216           | 0.000500             | 0.02000     | 0                        | 108           | 70       | 130       |             |      |          |      |
| Chloromethane              | 0.0253           | 0.000500             | 0.02000     | 0                        | 126           | 70       | 130       |             |      |          |      |
| Dibromochloromethane       | 0.0205           | 0.000500             | 0.02000     | 0                        | 102           | 70       | 130       |             |      |          |      |
| Dibromomethane             | 0.0215           | 0.000500             | 0.02000     | 0                        | 107           | 70       | 130       |             |      |          |      |
| m-Dichlorobenzene          | 0.0204           | 0.000500             | 0.02000     | 0                        | 102           | 70       | 130       |             |      |          |      |
| Methyl tert-butyl ether    | 0.0211           | 0.000500             | 0.02000     | 0                        | 106           | 70       | 130       |             |      |          |      |
| o-Chlorotoluene            | 0.0211           | 0.000500             | 0.02000     | 0                        | 106           | 70       | 130       |             |      |          |      |
| p-Chlorotoluene            | 0.0214           | 0.000500             | 0.02000     | 0                        | 107           | 70       | 130       |             |      |          |      |
| Surr: Dibromofluoromethane | 0.0434           |                      | 0.04000     |                          | 109           | 80       | 120       |             |      |          |      |
| Surr: Toluene-d8           | 0.0413           |                      | 0.04000     |                          | 103           | 80       | 120       |             |      |          |      |
| Surr: 4-Bromofluorobenzene | 0.0394           |                      | 0.04000     |                          | 98.4          | 80       | 120       |             |      |          |      |

| Sample ID: <b>MBLK</b> | SampleType: <b>MBLK</b> | TestCode: <b>EPA524.2_D</b> | Units: <b>mg/L</b> | Prep Date:                      | RunNo: <b>15813</b>  |          |           |             |      |          |      |
|------------------------|-------------------------|-----------------------------|--------------------|---------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Client ID: <b>PBW</b>  | Batch ID: <b>R15813</b> | TestNo: <b>E524.2</b>       |                    | Analysis Date: <b>11/5/2020</b> | SeqNo: <b>240584</b> |          |           |             |      |          |      |
| Analyte                | Result                  | PQL                         | SPK value          | SPK Ref Val                     | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

**Qualifiers:**  
\* Value exceeds Maximum Contaminant Level  
H Holding times for preparation or analysis exceeded  
PL Permit Limit

C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit

E Value above quantitation range  
ND Not Detected at the Reporting Limit

Original



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# QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

|                                   |                         |                             |                    |                                 |                      |          |           |             |      |          |      |
|-----------------------------------|-------------------------|-----------------------------|--------------------|---------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MBLK</b>            | SampleType: <b>MBLK</b> | TestCode: <b>EPA524.2_D</b> | Units: <b>mg/L</b> | Prep Date:                      | RunNo: <b>15813</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>             | Batch ID: <b>R15813</b> | TestNo: <b>E524.2</b>       |                    | Analysis Date: <b>11/5/2020</b> | SeqNo: <b>240584</b> |          |           |             |      |          |      |
| Analyte                           | Result                  | PQL                         | SPK value          | SPK Ref Val                     | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| 1,1,1-Trichloroethane (1,1,1-TCA) | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| 1,1,2-Trichloroethane             | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| 1,1-Dichloroethylene              | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| 1,2,4-Trichlorobenzene            | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| 1,2-Dichloroethane (EDC)          | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| 1,2-Dichloropropane               | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| Benzene                           | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| Carbon tetrachloride              | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| cis-1,2-Dichloroethene            | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| Dichloromethane                   | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| Ethylbenzene                      | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| Monochlorobenzene                 | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| o-Dichlorobenzene                 | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| p-Dichlorobenzene                 | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| Styrene                           | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| Tetrachloroethene (PCE)           | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| Toluene                           | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| trans-1,2-Dichloroethylene        | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| Trichloroethene (TCE)             | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| Vinyl chloride                    | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| Xylenes, Total                    | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| 1,1,1,2-Tetrachloroethane         | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| 1,1,2,2-Tetrachloroethane         | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| 1,1-Dichloroethane                | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| 1,1-Dichloropropene               | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |
| 1,2,3-Trichloropropane            | ND                      | 0.000500                    |                    |                                 |                      |          |           |             |      |          |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
H Holding times for preparation or analysis exceeded  
PL Permit Limit

C.1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit

E Value above quantitation range  
ND Not Detected at the Reporting Limit

Original



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# QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

|                        |                          |                             |                    |                                 |                      |          |           |             |      |          |      |
|------------------------|--------------------------|-----------------------------|--------------------|---------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MBLK</b> | Sample Type: <b>MBLK</b> | TestCode: <b>EPA524.2_D</b> | Units: <b>mg/L</b> | Prep Date:                      | RunNo: <b>15813</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>  | Batch ID: <b>R15813</b>  | TestNo: <b>E524.2</b>       |                    | Analysis Date: <b>11/5/2020</b> | SeqNo: <b>240584</b> |          |           |             |      |          |      |
| Analyte                | Result                   | PQL                         | SPK value          | SPK Ref Val                     | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|                            |        |          |         |  |      |    |  |  |  |     |  |
|----------------------------|--------|----------|---------|--|------|----|--|--|--|-----|--|
| 1,3-Dichloropropane        | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| 1,3-Dichloropropene        | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| 2,2-Dichloropropane        | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Bromobenzene               | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Bromodichloromethane       | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Bromoform                  | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Bromomethane               | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Chloroethane               | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Chloroform                 | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Chloromethane              | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Dibromochloromethane       | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Dibromomethane             | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| m-Dichlorobenzene          | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Methyl tert-butyl ether    | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| o-Chlorotoluene            | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| p-Chlorotoluene            | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Surr: Dibromofluoromethane | 0.0427 |          | 0.04000 |  | 107  | 80 |  |  |  | 120 |  |
| Surr: Toluene-d8           | 0.0405 |          | 0.04000 |  | 101  | 80 |  |  |  | 120 |  |
| Surr: 4-Bromofluorobenzene | 0.0397 |          | 0.04000 |  | 99.3 | 80 |  |  |  | 120 |  |

|                               |                  |                      |             |                          |               |          |           |             |      |          |      |
|-------------------------------|------------------|----------------------|-------------|--------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 20110157-01EMS     | Sample Type: MS  | TestCode: EPA524.2_D | Units: mg/L | Prep Date:               | RunNo: 15813  |          |           |             |      |          |      |
| Client ID: Bear Creek Greenwa | Batch ID: R15813 | TestNo: E524.2       |             | Analysis Date: 11/5/2020 | SeqNo: 240596 |          |           |             |      |          |      |
| Analyte                       | Result           | PQL                  | SPK value   | SPK Ref Val              | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
H Holding times for preparation or analysis exceeded  
PL Permit Limit

C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit

E Value above quantitation range  
ND Not Detected at the Reporting Limit

Original



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# QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

| Sample ID: 20110157-01EIMS        |                  | SampleType: MS | TestCode: EPA524.2_D |             | Units: mg/L | Prep Date:               |           | RunNo: 15813  |      |          |      |
|-----------------------------------|------------------|----------------|----------------------|-------------|-------------|--------------------------|-----------|---------------|------|----------|------|
| Client ID: Bear Creek Greenwa     | Batch ID: R15813 |                | TestNo: E524.2       |             |             | Analysis Date: 11/5/2020 |           | SeqNo: 240596 |      |          |      |
| Analyte                           | Result           | PQL            | SPK value            | SPK Ref Val | %REC        | LowLimit                 | HighLimit | RPD Ref Val   | %RPD | RPDLimit | Qual |
| 1,1,1-Trichloroethane (1,1,1-TCA) | 0.0232           | 0.000500       | 0.02000              | 0           | 116         | 70                       | 130       |               |      |          |      |
| 1,1,2-Trichloroethane             | 0.0197           | 0.000500       | 0.02000              | 0           | 98.4        | 70                       | 130       |               |      |          |      |
| 1,1-Dichloroethylene              | 0.0225           | 0.000500       | 0.02000              | 0           | 113         | 70                       | 130       |               |      |          |      |
| 1,2,4-Trichlorobenzene            | 0.0147           | 0.000500       | 0.02000              | 0           | 73.7        | 70                       | 130       |               |      |          |      |
| 1,2-Dichloroethane (EDC)          | 0.0200           | 0.000500       | 0.02000              | 0           | 100         | 70                       | 130       |               |      |          |      |
| 1,2-Dichloropropane               | 0.0206           | 0.000500       | 0.02000              | 0           | 103         | 70                       | 130       |               |      |          |      |
| Benzene                           | 0.0201           | 0.000500       | 0.02000              | 0           | 100         | 70                       | 130       |               |      |          |      |
| Carbon tetrachloride              | 0.0210           | 0.000500       | 0.02000              | 0           | 105         | 70                       | 130       |               |      |          |      |
| cis-1,2-Dichloroethene            | 0.0221           | 0.000500       | 0.02000              | 0           | 111         | 70                       | 130       |               |      |          |      |
| Dichloromethane                   | 0.0213           | 0.000500       | 0.02000              | 0           | 106         | 70                       | 130       |               |      |          |      |
| Ethylbenzene                      | 0.0198           | 0.000500       | 0.02000              | 0           | 99.2        | 70                       | 130       |               |      |          |      |
| Monochlorobenzene                 | 0.0191           | 0.000500       | 0.02000              | 0           | 95.5        | 70                       | 130       |               |      |          |      |
| o-Dichlorobenzene                 | 0.0180           | 0.000500       | 0.02000              | 0           | 90.2        | 70                       | 130       |               |      |          |      |
| p-Dichlorobenzene                 | 0.0175           | 0.000500       | 0.02000              | 0           | 87.6        | 70                       | 130       |               |      |          |      |
| Styrene                           | 0.0190           | 0.000500       | 0.02000              | 0           | 95.1        | 70                       | 130       |               |      |          |      |
| Tetrachloroethene (PCE)           | 0.0187           | 0.000500       | 0.02000              | 0           | 93.6        | 70                       | 130       |               |      |          |      |
| Toluene                           | 0.0210           | 0.000500       | 0.02000              | 0           | 105         | 70                       | 130       |               |      |          |      |
| trans-1,2-Dichloroethylene        | 0.0232           | 0.000500       | 0.02000              | 0           | 116         | 70                       | 130       |               |      |          |      |
| Trichloroethene (TCE)             | 0.0209           | 0.000500       | 0.02000              | 0           | 105         | 70                       | 130       |               |      |          |      |
| Vinyl chloride                    | 0.0200           | 0.000500       | 0.02000              | 0           | 100         | 70                       | 130       |               |      |          |      |
| Xylenes, Total                    | 0.0620           | 0.000500       | 0.06000              | 0           | 103         | 70                       | 130       |               |      |          |      |
| 1,1,1,2-Tetrachloroethane         | 0.0191           | 0.000500       | 0.02000              | 0           | 95.6        | 70                       | 130       |               |      |          |      |
| 1,1,2,2-Tetrachloroethane         | 0.0170           | 0.000500       | 0.02000              | 0           | 84.8        | 70                       | 130       |               |      |          |      |
| 1,1-Dichloroethane                | 0.0219           | 0.000500       | 0.02000              | 0           | 110         | 70                       | 130       |               |      |          |      |
| 1,1-Dichloropropene               | 0.0214           | 0.000500       | 0.02000              | 0           | 107         | 70                       | 130       |               |      |          |      |
| 1,2,3-Trichloropropane            | 0.0157           | 0.000500       | 0.02000              | 0           | 78.7        | 70                       | 130       |               |      |          |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
H Holding times for preparation or analysis exceeded  
PL Permit Limit  
C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit  
E Value above quantitation range  
ND Not Detected at the Reporting Limit

Original



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# QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

| Sample ID: 20110157-01EMS     |        | Sample Type: MS  |           | TestCode: EPA524.2_D |      | Units: mg/L |           | Prep Date:               |      | RunNo: 15813  |      |
|-------------------------------|--------|------------------|-----------|----------------------|------|-------------|-----------|--------------------------|------|---------------|------|
| Client ID: Bear Creek Greenwa |        | Batch ID: R15813 |           | TestNo: E524.2       |      |             |           | Analysis Date: 11/5/2020 |      | SeqNo: 240596 |      |
| Analyte                       | Result | PQL              | SPK value | SPK Ref Val          | %REC | LowLimit    | HighLimit | RPD Ref Val              | %RPD | RPDLimit      | Qual |
| 1,3-Dichloropropane           | 0.0183 | 0.000500         | 0.02000   | 0                    | 91.3 | 70          | 130       |                          |      |               |      |
| 1,3-Dichloropropene           | 0.0372 | 0.000500         | 0.04000   | 0                    | 93.1 | 70          | 130       |                          |      |               |      |
| 2,2-Dichloropropane           | 0.0191 | 0.000500         | 0.02000   | 0                    | 95.4 | 70          | 130       |                          |      |               |      |
| Bromobenzene                  | 0.0179 | 0.000500         | 0.02000   | 0                    | 89.6 | 70          | 130       |                          |      |               |      |
| Bromodichloromethane          | 0.0202 | 0.000500         | 0.02000   | 0                    | 101  | 70          | 130       |                          |      |               |      |
| Bromoform                     | 0.0160 | 0.000500         | 0.02000   | 0                    | 79.8 | 70          | 130       |                          |      |               |      |
| Bromomethane                  | 0.0176 | 0.000500         | 0.02000   | 0                    | 88.1 | 70          | 130       |                          |      |               |      |
| Chloroethane                  | 0.0166 | 0.000500         | 0.02000   | 0                    | 83.2 | 70          | 130       |                          |      |               |      |
| Chloroform                    | 0.0223 | 0.000500         | 0.02000   | 0                    | 112  | 70          | 130       |                          |      |               |      |
| Chloromethane                 | 0.0208 | 0.000500         | 0.02000   | 0                    | 104  | 70          | 130       |                          |      |               |      |
| Dibromochloromethane          | 0.0178 | 0.000500         | 0.02000   | 0                    | 88.9 | 70          | 130       |                          |      |               |      |
| Dibromomethane                | 0.0200 | 0.000500         | 0.02000   | 0                    | 99.8 | 70          | 130       |                          |      |               |      |
| m-Dichlorobenzene             | 0.0181 | 0.000500         | 0.02000   | 0                    | 90.5 | 70          | 130       |                          |      |               |      |
| Methyl tert-butyl ether       | 0.0192 | 0.000500         | 0.02000   | 0                    | 96.2 | 70          | 130       |                          |      |               |      |
| o-Chlorotoluene               | 0.0193 | 0.000500         | 0.02000   | 0                    | 96.4 | 70          | 130       |                          |      |               |      |
| p-Chlorotoluene               | 0.0192 | 0.000500         | 0.02000   | 0                    | 96.0 | 70          | 130       |                          |      |               |      |
| Surr: Dibromofluoromethane    | 0.0462 |                  | 0.04000   |                      | 115  | 80          | 120       |                          |      |               |      |
| Surr: Toluene-d8              | 0.0427 |                  | 0.04000   |                      | 107  | 80          | 120       |                          |      |               |      |
| Surr: 4-Bromofluorobenzene    | 0.0393 |                  | 0.04000   |                      | 98.4 | 80          | 120       |                          |      |               |      |

|                               |                  |                      |             |                          |               |          |           |             |      |          |      |
|-------------------------------|------------------|----------------------|-------------|--------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 20110157-01EMSD    | Sample Type: MSD | TestCode: EPA524.2_D | Units: mg/L | Prep Date:               | RunNo: 15813  |          |           |             |      |          |      |
| Client ID: Bear Creek Greenwa | Batch ID: R15813 | TestNo: E524.2       |             | Analysis Date: 11/5/2020 | SeqNo: 240597 |          |           |             |      |          |      |
| Analyte                       | Result           | PQL                  | SPK value   | SPK Ref Val              | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

**Qualifiers:**

|    |                                                    |    |                                     |
|----|----------------------------------------------------|----|-------------------------------------|
| *  | Value exceeds Maximum Contaminant Level            | E  | Value above quantitation range      |
| H  | Holding times for preparation or analysis exceeded | ND | Not Detected at the Reporting Limit |
| PL | Permit Limit                                       |    |                                     |

Original



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# QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

| Sample ID: 20110157-01EMSD        | MSD              | SampType: | TestCode: EPA524.2_D | Units: mg/L | Prep Date:               |          | RunNo: 15813  |             |      |          |      |
|-----------------------------------|------------------|-----------|----------------------|-------------|--------------------------|----------|---------------|-------------|------|----------|------|
| Client ID: Bear Creek Greenwa     | Batch ID: R15813 |           | TestNo: E524.2       |             | Analysis Date: 11/5/2020 |          | SeqNo: 240597 |             |      |          |      |
| Analyte                           | Result           | PQL       | SPK value            | SPK Ref Val | %REC                     | LowLimit | HighLimit     | RPD Ref Val | %RPD | RPDLimit | Qual |
| 1,1,1-Trichloroethane (1,1,1-TCA) | 0.0209           | 0.000500  | 0.02000              | 0           | 104                      | 70       | 130           | 0.02318     | 10.4 | 20       |      |
| 1,1,2-Trichloroethane             | 0.0185           | 0.000500  | 0.02000              | 0           | 92.5                     | 70       | 130           | 0.01967     | 6.13 | 20       |      |
| 1,1-Dichloroethylene              | 0.0201           | 0.000500  | 0.02000              | 0           | 100                      | 70       | 130           | 0.02251     | 11.4 | 20       |      |
| 1,2,4-Trichlorobenzene            | 0.0137           | 0.000500  | 0.02000              | 0           | 68.4                     | 70       | 130           | 0.01473     | 7.46 | 20       | MI   |
| 1,2-Dichloroethane (EDC)          | 0.0181           | 0.000500  | 0.02000              | 0           | 90.3                     | 70       | 130           | 0.02003     | 10.3 | 20       |      |
| 1,2-Dichloropropane               | 0.0188           | 0.000500  | 0.02000              | 0           | 94.2                     | 70       | 130           | 0.02064     | 9.17 | 20       |      |
| Benzene                           | 0.0182           | 0.000500  | 0.02000              | 0           | 91.2                     | 70       | 130           | 0.02006     | 9.45 | 20       |      |
| Carbon tetrachloride              | 0.0197           | 0.000500  | 0.02000              | 0           | 98.4                     | 70       | 130           | 0.02099     | 6.49 | 20       |      |
| cis-1,2-Dichloroethane            | 0.0198           | 0.000500  | 0.02000              | 0           | 98.8                     | 70       | 130           | 0.02212     | 11.3 | 20       |      |
| Dichloromethane                   | 0.0192           | 0.000500  | 0.02000              | 0           | 95.8                     | 70       | 130           | 0.02127     | 10.4 | 20       |      |
| Ethylbenzene                      | 0.0180           | 0.000500  | 0.02000              | 0           | 90.2                     | 70       | 130           | 0.01983     | 9.51 | 20       |      |
| Monochlorobenzene                 | 0.0173           | 0.000500  | 0.02000              | 0           | 86.7                     | 70       | 130           | 0.01909     | 9.61 | 20       |      |
| o-Dichlorobenzene                 | 0.0165           | 0.000500  | 0.02000              | 0           | 82.5                     | 70       | 130           | 0.01804     | 8.98 | 20       |      |
| p-Dichlorobenzene                 | 0.0163           | 0.000500  | 0.02000              | 0           | 81.5                     | 70       | 130           | 0.01752     | 7.28 | 20       |      |
| Styrene                           | 0.0175           | 0.000500  | 0.02000              | 0           | 87.7                     | 70       | 130           | 0.01902     | 8.10 | 20       |      |
| Tetrachloroethene (PCE)           | 0.0167           | 0.000500  | 0.02000              | 0           | 83.4                     | 70       | 130           | 0.01872     | 11.6 | 20       |      |
| Toluene                           | 0.0193           | 0.000500  | 0.02000              | 0           | 96.6                     | 70       | 130           | 0.02104     | 8.52 | 20       |      |
| trans-1,2-Dichloroethylene        | 0.0207           | 0.000500  | 0.02000              | 0           | 104                      | 70       | 130           | 0.02324     | 11.4 | 20       |      |
| Trichloroethene (TCE)             | 0.0188           | 0.000500  | 0.02000              | 0           | 93.8                     | 70       | 130           | 0.02092     | 10.9 | 20       |      |
| Vinyl chloride                    | 0.0216           | 0.000500  | 0.02000              | 0           | 108                      | 70       | 130           | 0.02004     | 7.63 | 20       |      |
| Xylenes, Total                    | 0.0563           | 0.000500  | 0.06000              | 0           | 93.8                     | 70       | 130           | 0.06203     | 9.67 | 20       |      |
| 1,1,1,2-Tetrachloroethane         | 0.0174           | 0.000500  | 0.02000              | 0           | 87.2                     | 70       | 130           | 0.01912     | 9.13 | 20       |      |
| 1,1,2,2-Tetrachloroethane         | 0.0158           | 0.000500  | 0.02000              | 0           | 79.1                     | 70       | 130           | 0.01695     | 6.96 | 20       |      |
| 1,1-Dichloroethane                | 0.0206           | 0.000500  | 0.02000              | 0           | 103                      | 70       | 130           | 0.02191     | 6.31 | 20       |      |
| 1,1-Dichloropropene               | 0.0194           | 0.000500  | 0.02000              | 0           | 97.0                     | 70       | 130           | 0.02143     | 9.89 | 20       |      |
| 1,2,3-Trichloropropane            | 0.0147           | 0.000500  | 0.02000              | 0           | 73.4                     | 70       | 130           | 0.01573     | 6.97 | 20       |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
H Holding times for preparation or analysis exceeded  
PL Permit Limit  
C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit  
E Value above quantitation range  
ND Not Detected at the Reporting Limit

Original





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# QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

| Sample ID: 20110157-01EMSD    |        |          | SampType: MSD    |             | TestCode: EPA524.2_D |          | Units: mg/L              |             | Prep Date:    |          | RunNo: 15813 |  |
|-------------------------------|--------|----------|------------------|-------------|----------------------|----------|--------------------------|-------------|---------------|----------|--------------|--|
| Client ID: Bear Creek Greenwa |        |          | Batch ID: R15813 |             | TestNo: E524.2       |          | Analysis Date: 11/5/2020 |             | SeqNo: 240597 |          |              |  |
| Analyte                       | Result | PQL      | SPK value        | SPK Ref Val | %REC                 | LowLimit | HighLimit                | RPD Ref Val | %RPD          | RPDLimit | Qual         |  |
| 1,3-Dichloropropane           | 0.0165 | 0.000500 | 0.02000          | 0           | 82.5                 | 70       | 130                      | 0.01826     | 10.1          | 20       |              |  |
| 1,3-Dichloropropene           | 0.0348 | 0.000500 | 0.04000          | 0           | 87.0                 | 70       | 130                      | 0.03723     | 6.80          | 20       |              |  |
| 2,2-Dichloropropane           | 0.0167 | 0.000500 | 0.02000          | 0           | 83.4                 | 70       | 130                      | 0.01908     | 13.5          | 20       |              |  |
| Bromobenzene                  | 0.0164 | 0.000500 | 0.02000          | 0           | 82.0                 | 70       | 130                      | 0.01793     | 8.97          | 20       |              |  |
| Bromodichloromethane          | 0.0187 | 0.000500 | 0.02000          | 0           | 93.5                 | 70       | 130                      | 0.02023     | 7.91          | 20       |              |  |
| Bromoform                     | 0.0150 | 0.000500 | 0.02000          | 0           | 74.8                 | 70       | 130                      | 0.01596     | 6.54          | 20       |              |  |
| Bromomethane                  | 0.0195 | 0.000500 | 0.02000          | 0           | 97.4                 | 70       | 130                      | 0.01762     | 9.98          | 20       |              |  |
| Chloroethane                  | 0.0179 | 0.000500 | 0.02000          | 0           | 89.6                 | 70       | 130                      | 0.01664     | 7.41          | 20       |              |  |
| Chloroform                    | 0.0201 | 0.000500 | 0.02000          | 0           | 101                  | 70       | 130                      | 0.02234     | 10.4          | 20       |              |  |
| Chloromethane                 | 0.0233 | 0.000500 | 0.02000          | 0           | 116                  | 70       | 130                      | 0.02081     | 11.2          | 20       |              |  |
| Dibromochloromethane          | 0.0164 | 0.000500 | 0.02000          | 0           | 82.0                 | 70       | 130                      | 0.01777     | 8.08          | 20       |              |  |
| Dibromomethane                | 0.0185 | 0.000500 | 0.02000          | 0           | 92.5                 | 70       | 130                      | 0.01997     | 7.64          | 20       |              |  |
| m-Dichlorobenzene             | 0.0168 | 0.000500 | 0.02000          | 0           | 84.0                 | 70       | 130                      | 0.01810     | 7.45          | 20       |              |  |
| Methyl tert-butyl ether       | 0.0178 | 0.000500 | 0.02000          | 0           | 88.8                 | 70       | 130                      | 0.01924     | 8.00          | 20       |              |  |
| o-Chlorotoluene               | 0.0176 | 0.000500 | 0.02000          | 0           | 87.8                 | 70       | 130                      | 0.01927     | 9.29          | 20       |              |  |
| p-Chlorotoluene               | 0.0182 | 0.000500 | 0.02000          | 0           | 91.0                 | 70       | 130                      | 0.01920     | 5.35          | 20       |              |  |
| Surr: Dibromofluoromethane    | 0.0463 |          | 0.04000          |             | 116                  | 80       | 120                      |             | 0             | 0        |              |  |
| Surr: Toluene-d8              | 0.0436 |          | 0.04000          |             | 109                  | 80       | 120                      |             | 0             | 0        |              |  |
| Surr: 4-Bromofluorobenzene    | 0.0404 |          | 0.04000          |             | 101                  | 80       | 120                      |             | 0             | 0        |              |  |

| Qualifiers: | *  | Value exceeds Maximum Holding times for preparation or analysis | Contaminant Level | C1 | Sample container temperature is out of limit as specified at testcode | E  | Value above quantitation range      |
|-------------|----|-----------------------------------------------------------------|-------------------|----|-----------------------------------------------------------------------|----|-------------------------------------|
|             | H  |                                                                 |                   | MI | Recovery outside control limits due to Matrix Interference            | ND | Not Detected at the Reporting Limit |
|             | PL | Permit Limit                                                    |                   | RL | Reporting Detection Limit                                             |    |                                     |

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## QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** HG\_DW

|                    |                |                 |             |                           |                                                        |
|--------------------|----------------|-----------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: MB-7626 | SampType: MBLK | TestCode: HG_DW | Units: mg/L | Prep Date: 11/9/2020      | RunNo: 16961                                           |
| Client ID: PBW     | Batch ID: 7626 | TestNo: E245.1  | E245.1      | Analysis Date: 11/11/2020 | SeqNo: 243358                                          |
| Analyte            | Result         | PQL             | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Mercury            | ND             | 0.000200        |             |                           |                                                        |

|                     |                |                 |             |                           |                                                        |
|---------------------|----------------|-----------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: LCS-7626 | SampType: LCS  | TestCode: HG_DW | Units: mg/L | Prep Date: 11/9/2020      | RunNo: 16961                                           |
| Client ID: LCSW     | Batch ID: 7626 | TestNo: E245.1  | E245.1      | Analysis Date: 11/11/2020 | SeqNo: 243359                                          |
| Analyte             | Result         | PQL             | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Mercury             | 0.00529        | 0.000200        | 0.005000    | 0                         | 106 85 115                                             |

|                           |                |                 |             |                           |                                                        |
|---------------------------|----------------|-----------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20110374-01AMS | SampType: MS   | TestCode: HG_DW | Units: mg/L | Prep Date: 11/9/2020      | RunNo: 16961                                           |
| Client ID: BatchQC        | Batch ID: 7626 | TestNo: E245.1  | E245.1      | Analysis Date: 11/11/2020 | SeqNo: 243362                                          |
| Analyte                   | Result         | PQL             | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Mercury                   | 0.00515        | 0.000200        | 0.005000    | 0                         | 103 75 125                                             |

|                            |                |                 |             |                           |                                                        |
|----------------------------|----------------|-----------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20110374-01AMSD | SampType: MSD  | TestCode: HG_DW | Units: mg/L | Prep Date: 11/9/2020      | RunNo: 16961                                           |
| Client ID: BatchQC         | Batch ID: 7626 | TestNo: E245.1  | E245.1      | Analysis Date: 11/11/2020 | SeqNo: 243363                                          |
| Analyte                    | Result         | PQL             | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Mercury                    | 0.00511        | 0.000200        | 0.005000    | 0                         | 102 75 125 0.005150 0.780 20                           |

**Qualifiers:**  
\* Value exceeds Maximum Contaminant Level.  
H Holding times for preparation or analysis exceeded  
PL Permit Limit

C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit

E Value above quantitation range  
ND Not Detected at the Reporting Limit

Original



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## QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** PAH\_W

|                    |                  |                 |             |                           |               |          |           |             |      |          |      |
|--------------------|------------------|-----------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: MB-7632 | SampleType: MBLK | TestCode: PAH_W | Units: µg/L | Prep Date: 11/9/2020      | RunNo: 17044  |          |           |             |      |          |      |
| Client ID: PBW     | Batch ID: 7632   | TestNo: SW8270C | SW8270      | Analysis Date: 11/12/2020 | SeqNo: 245022 |          |           |             |      |          |      |
| Analyte            | Result           | PQL             | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|                        |      |       |       |  |      |    |     |  |  |  |  |
|------------------------|------|-------|-------|--|------|----|-----|--|--|--|--|
| Acenaphthene           | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Acenaphthylene         | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Anthracene             | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Benzo(a)anthracene     | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Benzo(a)pyrene         | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Benzo(b)fluoranthene   | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Benzo(g,h,i)perylene   | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Benzo(k)fluoranthene   | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Chrysene               | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Dibenz(a,h)anthracene  | ND   | 1.00  |       |  |      |    |     |  |  |  |  |
| Fluoranthene           | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Fluorene               | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Indeno(1,2,3-cd)pyrene | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Naphthalene            | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Phenanthrene           | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Pyrene                 | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Surr: 2-Fluorobiphenyl | 17.4 |       | 20.00 |  | 87.1 | 63 | 110 |  |  |  |  |
| Surr: 4-Terphenyl-d14  | 20.7 |       | 20.00 |  | 104  | 68 | 110 |  |  |  |  |

|                     |                 |                 |             |                           |               |          |           |             |      |          |      |
|---------------------|-----------------|-----------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: LCS-7632 | SampleType: LCS | TestCode: PAH_W | Units: µg/L | Prep Date: 11/9/2020      | RunNo: 17044  |          |           |             |      |          |      |
| Client ID: LCSW     | Batch ID: 7632  | TestNo: SW8270C | SW8270      | Analysis Date: 11/12/2020 | SeqNo: 245023 |          |           |             |      |          |      |
| Analyte             | Result          | PQL             | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|              |      |       |       |   |      |    |     |  |  |  |  |
|--------------|------|-------|-------|---|------|----|-----|--|--|--|--|
| Acenaphthene | 8.55 | 0.500 | 10.00 | 0 | 85.5 | 55 | 115 |  |  |  |  |
|--------------|------|-------|-------|---|------|----|-----|--|--|--|--|

**Qualifiers:** \* Value exceeds Maximum Contaminant Level, Holding times for preparation or analysis exceeded  
H Permit Limit  
PL  
C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit  
E Value above quantitation range  
ND Not Detected at the Reporting Limit

Original



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# QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** PAH\_W

| Sample ID: LCS-7632    | SampType: LCS  | TestCode: PAH_W | Units: µg/L | Prep Date: 11/9/2020      | RunNo: 17044  |          |           |             |      |          |      |
|------------------------|----------------|-----------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Client ID: LCSW        | Batch ID: 7632 | TestNo: SW8270C | SW8270      | Analysis Date: 11/12/2020 | SeqNo: 245023 |          |           |             |      |          |      |
| Analyte                | Result         | PQL             | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Acenaphthylene         | 8.73           | 0.500           | 10.00       | 0                         | 87.3          | 50       | 120       |             |      |          |      |
| Anthracene             | 9.00           | 0.500           | 10.00       | 0                         | 90.0          | 70       | 120       |             |      |          |      |
| Benzo(a)anthracene     | 8.95           | 0.500           | 10.00       | 0                         | 89.5          | 70       | 125       |             |      |          |      |
| Benzo(a)pyrene         | 10.7           | 0.500           | 10.00       | 0                         | 107           | 70       | 130       |             |      |          |      |
| Benzo(b)fluoranthene   | 9.10           | 0.500           | 10.00       | 0                         | 91.0          | 70       | 125       |             |      |          |      |
| Benzo(g,h,i)perylene   | 9.98           | 0.500           | 10.00       | 0                         | 99.8          | 70       | 130       |             |      |          |      |
| Benzo(k)fluoranthene   | 10.0           | 0.500           | 10.00       | 0                         | 100           | 70       | 130       |             |      |          |      |
| Chrysene               | 9.63           | 0.500           | 10.00       | 0                         | 96.3          | 70       | 120       |             |      |          |      |
| Dibenz(a,h)anthracene  | 9.43           | 1.00            | 10.00       | 0                         | 94.3          | 70       | 130       |             |      |          |      |
| Fluoranthene           | 9.36           | 0.500           | 10.00       | 0                         | 93.6          | 70       | 125       |             |      |          |      |
| Fluorene               | 8.50           | 0.500           | 10.00       | 0                         | 85.0          | 65       | 125       |             |      |          |      |
| Indeno(1,2,3-cd)pyrene | 9.34           | 0.500           | 10.00       | 0                         | 93.4          | 70       | 130       |             |      |          |      |
| Naphthalene            | 7.67           | 0.500           | 10.00       | 0                         | 76.7          | 60       | 130       |             |      |          |      |
| Phenanthrene           | 8.55           | 0.500           | 10.00       | 0                         | 85.5          | 70       | 125       |             |      |          |      |
| Pyrene                 | 9.45           | 0.500           | 10.00       | 0                         | 94.5          | 70       | 130       |             |      |          |      |
| Surr: 2-Fluorobiphenyl | 17.0           |                 | 20.00       |                           | 85.0          | 63       | 110       |             |      |          |      |
| Surr: 4-Terphenyl-d14  | 18.2           |                 | 20.00       |                           | 91.0          | 68       | 110       |             |      |          |      |

|                               |                |                 |                 |             |             |                           |           |               |      |          |      |
|-------------------------------|----------------|-----------------|-----------------|-------------|-------------|---------------------------|-----------|---------------|------|----------|------|
| Sample ID: 20110157-01MMS     |                | SampType: MS    | TestCode: PAH_W |             | Units: µg/L | Prep Date: 11/9/2020      |           | RunNo: 17044  |      |          |      |
| Client ID: Bear Creek Greenwa | Batch ID: 7632 | TestNo: SW8270C |                 | SW8270      |             | Analysis Date: 11/12/2020 |           | SeqNo: 245027 |      |          |      |
| Analyte                       | Result         | PQL             | SPK value       | SPK Ref Val | %REC        | LowLimit                  | HighLimit | RPD Ref Val   | %RPD | RPDLimit | Qual |
| Acenaphthene                  | 8.84           | 0.500           | 10.00           | 0           | 88.4        | 55                        | 115       |               |      |          |      |
| Acenaphthylene                | 9.21           | 0.500           | 10.00           | 0           | 92.1        | 50                        | 120       |               |      |          |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level, Holding times for preparation or analysis exceeded  
H Permit Limit  
PL  
C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit  
E Value above quantitation range  
ND Not Detected at the Reporting Limit

Original



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# QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** PAH\_W

|                               |        |                |                 |             |             |                           |           |               |      |          |      |
|-------------------------------|--------|----------------|-----------------|-------------|-------------|---------------------------|-----------|---------------|------|----------|------|
| Sample ID: 20110157-01MMS     |        | SampType: MS   | TestCode: PAH_W |             | Units: µg/L | Prep Date: 11/9/2020      |           | RunNo: 17044  |      |          |      |
| Client ID: Bear Creek Greenwa |        | Batch ID: 7632 | TestNo: SW8270C |             | SW8270      | Analysis Date: 11/12/2020 |           | SeqNo: 245027 |      |          |      |
| Analyte                       | Result | PQL            | SPK value       | SPK Ref Val | %REC        | LowLimit                  | HighLimit | RPD Ref Val   | %RPD | RPDLimit | Qual |
| Anthracene                    | 9.49   | 0.500          | 10.00           | 0           | 94.9        | 70                        | 120       |               |      |          |      |
| Benzo(a)anthracene            | 9.27   | 0.500          | 10.00           | 0           | 92.7        | 70                        | 125       |               |      |          |      |
| Benzo(a)pyrene                | 11.0   | 0.500          | 10.00           | 0           | 110         | 70                        | 130       |               |      |          |      |
| Benzo(b)fluoranthene          | 10.1   | 0.500          | 10.00           | 0           | 101         | 70                        | 125       |               |      |          |      |
| Benzo(g,h,i)perylene          | 10.5   | 0.500          | 10.00           | 0           | 105         | 70                        | 130       |               |      |          |      |
| Benzo(k)fluoranthene          | 9.15   | 0.500          | 10.00           | 0           | 91.5        | 70                        | 130       |               |      |          |      |
| Chrysene                      | 9.68   | 0.500          | 10.00           | 0           | 96.8        | 70                        | 120       |               |      |          |      |
| Dibenz(a,h)anthracene         | 10.4   | 1.00           | 10.00           | 0           | 104         | 70                        | 130       |               |      |          |      |
| Fluoranthene                  | 9.94   | 0.500          | 10.00           | 0           | 99.4        | 70                        | 125       |               |      |          |      |
| Fluorene                      | 9.05   | 0.500          | 10.00           | 0           | 90.5        | 65                        | 125       |               |      |          |      |
| Indeno(1,2,3-cd)pyrene        | 10.1   | 0.500          | 10.00           | 0           | 101         | 70                        | 130       |               |      |          |      |
| Naphthalene                   | 8.08   | 0.500          | 10.00           | 0           | 80.8        | 60                        | 130       |               |      |          |      |
| Phenanthrene                  | 8.85   | 0.500          | 10.00           | 0           | 88.5        | 70                        | 125       |               |      |          |      |
| Pyrene                        | 9.87   | 0.500          | 10.00           | 0           | 98.7        | 70                        | 130       |               |      |          |      |
| Surr: 2-Fluorobiphenyl        | 18.2   |                | 20.00           |             | 91.1        | 63                        | 110       |               |      |          |      |
| Surr: 4-Terphenyl-d14         | 18.4   |                | 20.00           |             | 92.0        | 68                        | 110       |               |      |          |      |

|                               |                |               |                 |             |                           |               |           |             |      |          |      |
|-------------------------------|----------------|---------------|-----------------|-------------|---------------------------|---------------|-----------|-------------|------|----------|------|
| Sample ID: 20110157-01MMSD    |                | SampType: MSD | TestCode: PAH_W | Units: µg/L | Prep Date: 11/9/2020      | RunNo: 17044  |           |             |      |          |      |
| Client ID: Bear Creek Greenwa | Batch ID: 7632 |               | TestNo: SW8270C | SW8270      | Analysis Date: 11/12/2020 | SeqNo: 245028 |           |             |      |          |      |
| Analyte                       | Result         | PQL           | SPK value       | SPK Ref Val | %REC                      | LowLimit      | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Acenaphthene                  | 8.48           | 0.500         | 10.00           | 0           | 84.8                      | 55            | 115       | 8.840       | 4.16 | 25       |      |
| Acenaphthylene                | 8.77           | 0.500         | 10.00           | 0           | 87.7                      | 50            | 120       | 9.210       | 4.89 | 25       |      |
| Anthracene                    | 9.22           | 0.500         | 10.00           | 0           | 92.2                      | 70            | 120       | 9.490       | 2.89 | 25       |      |

**Qualifiers:**

|    |                                                    |    |                                                                       |    |                                     |
|----|----------------------------------------------------|----|-----------------------------------------------------------------------|----|-------------------------------------|
| *  | Value exceeds Maximum Contaminant Level            | C1 | Sample container temperature is out of limit as specified at testcode | E  | Value above quantitation range      |
| H  | Holding times for preparation or analysis exceeded | MI | Recovery outside control limits due to Matrix Interference            | ND | Not Detected at the Reporting Limit |
| PL | Permit Limit                                       | RL | Reporting Detection Limit                                             |    |                                     |

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Website: www.nrclabs.com

# QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** PAH\_W

| Sample ID: 20110157-01MMSD    |        |       | SampType: MSD  |             | TestCode: PAH_W |          | Units: µg/L |             | Prep Date: 11/9/2020      |          |      | RunNo: 17044  |  |
|-------------------------------|--------|-------|----------------|-------------|-----------------|----------|-------------|-------------|---------------------------|----------|------|---------------|--|
| Client ID: Bear Creek Greenwa |        |       | Batch ID: 7632 |             | TestNo: SW8270C |          | SW8270      |             | Analysis Date: 11/12/2020 |          |      | SeqNo: 245028 |  |
| Analyte                       | Result | PQL   | SPK value      | SPK Ref Val | %REC            | LowLimit | HighLimit   | RPD Ref Val | %RPD                      | RPDLimit | Qual |               |  |
| Benzo(a)anthracene            | 9.29   | 0.500 | 10.00          | 0           | 92.9            | 70       | 125         | 9.270       | 0.216                     | 25       |      |               |  |
| Benzo(a)pyrene                | 10.8   | 0.500 | 10.00          | 0           | 108             | 70       | 130         | 11.04       | 2.20                      | 25       |      |               |  |
| Benzo(b)fluoranthene          | 9.78   | 0.500 | 10.00          | 0           | 97.8            | 70       | 125         | 10.14       | 3.61                      | 25       |      |               |  |
| Benzo(g,h,i)perylene          | 10.0   | 0.500 | 10.00          | 0           | 100             | 70       | 130         | 10.49       | 4.68                      | 25       |      |               |  |
| Benzo(k)fluoranthene          | 9.42   | 0.500 | 10.00          | 0           | 94.2            | 70       | 130         | 9.150       | 2.91                      | 25       |      |               |  |
| Chrysene                      | 9.43   | 0.500 | 10.00          | 0           | 94.3            | 70       | 120         | 9.680       | 2.62                      | 25       |      |               |  |
| Dibenz(a,h)anthracene         | 9.69   | 1.00  | 10.00          | 0           | 96.9            | 70       | 130         | 10.37       | 6.78                      | 25       |      |               |  |
| Fluoranthene                  | 9.32   | 0.500 | 10.00          | 0           | 93.2            | 70       | 125         | 9.940       | 6.44                      | 25       |      |               |  |
| Fluorene                      | 8.64   | 0.500 | 10.00          | 0           | 86.4            | 65       | 125         | 9.050       | 4.64                      | 25       |      |               |  |
| Indeno(1,2,3-cd)pyrene        | 9.51   | 0.500 | 10.00          | 0           | 95.1            | 70       | 130         | 10.06       | 5.62                      | 25       |      |               |  |
| Naphthalene                   | 7.66   | 0.500 | 10.00          | 0           | 76.6            | 60       | 130         | 8.080       | 5.34                      | 25       |      |               |  |
| Phenanthrene                  | 8.53   | 0.500 | 10.00          | 0           | 85.3            | 70       | 125         | 8.850       | 3.68                      | 25       |      |               |  |
| Pyrene                        | 9.35   | 0.500 | 10.00          | 0           | 93.5            | 70       | 130         | 9.870       | 5.41                      | 25       |      |               |  |
| Surr: 2-Fluorobiphenyl        | 17.6   |       | 20.00          |             | 87.9            | 63       | 110         |             | 0                         | 0        |      |               |  |
| Surr: 4-Terphenyl-d14         | 18.8   |       | 20.00          |             | 93.8            | 68       | 110         |             | 0                         | 0        |      |               |  |

| Qualifiers: | *  | Value exceeds Maximum Contaminant Level,<br>Holding times for preparation or analysis exceeded | C1 | Sample container temperature is out of limit as specified at testcode<br>Recovery outside control limits due to Matrix Interference<br>Reporting Detection Limit | E  | Value above quantitation range<br>Not Detected at the Reporting Limit |
|-------------|----|------------------------------------------------------------------------------------------------|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----------------------------------------------------------------------|
|             | H  |                                                                                                | MI |                                                                                                                                                                  | ND |                                                                       |
|             | PL | Permit Limit                                                                                   | RL |                                                                                                                                                                  |    |                                                                       |

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# QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** PHOS-T\_W

|                          |                |                    |             |                          |                                                        |
|--------------------------|----------------|--------------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: LCS-7572      | SampType: LCS  | TestCode: PHOS-T_W | Units: mg/L | Prep Date: 11/5/2020     | RunNo: 15857                                           |
| Client ID: LCSW          | Batch ID: 7572 | TestNo: A4500-P-E  | A4500-P-E   | Analysis Date: 11/5/2020 | SeqNo: 240720                                          |
| Analyte                  | Result         | PQL                | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Phosphorus, Total (As P) | 0.485          | 0.0250             | 0.5000      | 0                        | 97.0 80 120                                            |

|                          |                |                    |             |                          |                                                        |
|--------------------------|----------------|--------------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: MB-7572       | SampType: MBLK | TestCode: PHOS-T_W | Units: mg/L | Prep Date: 11/5/2020     | RunNo: 15857                                           |
| Client ID: PBW           | Batch ID: 7572 | TestNo: A4500-P-E  | A4500-P-E   | Analysis Date: 11/5/2020 | SeqNo: 240721                                          |
| Analyte                  | Result         | PQL                | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Phosphorus, Total (As P) | ND             | 0.0250             |             |                          |                                                        |

|                           |                |                    |             |                          |                                                        |
|---------------------------|----------------|--------------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: 20110101-01BMS | SampType: MS   | TestCode: PHOS-T_W | Units: mg/L | Prep Date: 11/5/2020     | RunNo: 15857                                           |
| Client ID: BatchQC        | Batch ID: 7572 | TestNo: A4500-P-E  | A4500-P-E   | Analysis Date: 11/5/2020 | SeqNo: 240723                                          |
| Analyte                   | Result         | PQL                | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Phosphorus, Total (As P)  | 13.0           | 0.625              | 5.000       | 7.891                    | 102 80 120                                             |

|                            |                |                    |             |                          |                                                        |
|----------------------------|----------------|--------------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: 20110101-01BMSD | SampType: MSD  | TestCode: PHOS-T_W | Units: mg/L | Prep Date: 11/5/2020     | RunNo: 15857                                           |
| Client ID: BatchQC         | Batch ID: 7572 | TestNo: A4500-P-E  | A4500-P-E   | Analysis Date: 11/5/2020 | SeqNo: 240724                                          |
| Analyte                    | Result         | PQL                | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Phosphorus, Total (As P)   | 12.6           | 0.625              | 5.000       | 7.891                    | 93.6 80 120 12.98 3.16 15                              |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level, Holding times for preparation or analysis exceeded  
H Permit Limit  
PL  
C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit  
E Value above quantitation range  
ND Not Detected at the Reporting Limit

Original



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# QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** SOLIDS\_TSS\_W

|                        |                |                      |             |                           |               |          |           |             |      |          |      |
|------------------------|----------------|----------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: MB-7654     | SampType: MBLK | TestCode: SOLIDS_TSS | Units: mg/L | Prep Date: 11/10/2020     | RunNo: 16969  |          |           |             |      |          |      |
| Client ID: PBW         | Batch ID: 7654 | TestNo: A2540D       |             | Analysis Date: 11/10/2020 | SeqNo: 243417 |          |           |             |      |          |      |
| Analyte                | Result         | PQL                  | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Suspended Solids | ND             |                      | 1.00        |                           |               |          |           |             |      |          |      |

|                        |                |                      |             |                           |               |          |           |             |      |          |      |
|------------------------|----------------|----------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: LCS-7654    | SampType: LCS  | TestCode: SOLIDS_TSS | Units: mg/L | Prep Date: 11/10/2020     | RunNo: 16969  |          |           |             |      |          |      |
| Client ID: LCSW        | Batch ID: 7654 | TestNo: A2540D       |             | Analysis Date: 11/10/2020 | SeqNo: 243418 |          |           |             |      |          |      |
| Analyte                | Result         | PQL                  | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Suspended Solids | 850            | 40.0                 | 1000        | 0                         | 85.0          | 80       | 120       |             |      |          |      |

|                               |                |                      |             |                           |               |          |           |             |      |          |      |
|-------------------------------|----------------|----------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 20110157-01BDUP    | SampType: DUP  | TestCode: SOLIDS_TSS | Units: mg/L | Prep Date: 11/10/2020     | RunNo: 16969  |          |           |             |      |          |      |
| Client ID: Bear Creek Greenwa | Batch ID: 7654 | TestNo: A2540D       |             | Analysis Date: 11/10/2020 | SeqNo: 243420 |          |           |             |      |          |      |
| Analyte                       | Result         | PQL                  | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Suspended Solids        | 6.50           | 2.00                 |             |                           |               |          |           | 6.000       | 8.00 | 5        | R4   |

|                            |                |                      |             |                           |               |          |           |             |      |          |      |
|----------------------------|----------------|----------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 20110374-01BDUP | SampType: DUP  | TestCode: SOLIDS_TSS | Units: mg/L | Prep Date: 11/10/2020     | RunNo: 16969  |          |           |             |      |          |      |
| Client ID: BatchQC         | Batch ID: 7654 | TestNo: A2540D       |             | Analysis Date: 11/10/2020 | SeqNo: 243431 |          |           |             |      |          |      |
| Analyte                    | Result         | PQL                  | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Suspended Solids     | ND             | 2.00                 |             |                           |               |          |           | 0           | 0    | 5        |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level, Holding times for preparation or analysis exceeded, Permit Limit  
H  
PL  
C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit  
E Value above quantitation range  
ND Not Detected at the Reporting Limit

Original





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# QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** TKN\_W

|                           |                |                 |             |                          |                                                        |
|---------------------------|----------------|-----------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: MB-7592        | SampType: MBLK | TestCode: TKN_W | Units: mg/L | Prep Date: 11/5/2020     | RunNo: 15891                                           |
| Client ID: PBW            | Batch ID: 7592 | TestNo: E351.2  | E351.1      | Analysis Date: 11/6/2020 | SeqNo: 241376                                          |
| Analyte                   | Result         | PQL             | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Nitrogen, Kjeldahl, Total | ND             | 0.625           |             |                          |                                                        |

|                           |                |                 |             |                          |                                                        |
|---------------------------|----------------|-----------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: LCS-7592       | SampType: LCS  | TestCode: TKN_W | Units: mg/L | Prep Date: 11/5/2020     | RunNo: 15891                                           |
| Client ID: LCSW           | Batch ID: 7592 | TestNo: E351.2  | E351.1      | Analysis Date: 11/6/2020 | SeqNo: 241376                                          |
| Analyte                   | Result         | PQL             | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Nitrogen, Kjeldahl, Total | 4.68           | 0.625           | 5,000       | 0                        | 93.5 90 110                                            |

|                           |                |                 |             |                          |                                                        |
|---------------------------|----------------|-----------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: 20110107-02BMS | SampType: MS   | TestCode: TKN_W | Units: mg/L | Prep Date: 11/5/2020     | RunNo: 15891                                           |
| Client ID: BatchQC        | Batch ID: 7592 | TestNo: E351.2  | E351.1      | Analysis Date: 11/6/2020 | SeqNo: 241380                                          |
| Analyte                   | Result         | PQL             | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Nitrogen, Kjeldahl, Total | 43.6           | 6.25            | 50.00       | 0                        | 87.2 80 120                                            |

|                            |                |                 |             |                          |                                                        |
|----------------------------|----------------|-----------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: 20110107-02BMSD | SampType: MSD  | TestCode: TKN_W | Units: mg/L | Prep Date: 11/5/2020     | RunNo: 15891                                           |
| Client ID: BatchQC         | Batch ID: 7592 | TestNo: E351.2  | E351.1      | Analysis Date: 11/6/2020 | SeqNo: 241381                                          |
| Analyte                    | Result         | PQL             | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Nitrogen, Kjeldahl, Total  | 42.4           | 6.25            | 50.00       | 0                        | 84.7 80 120 43.58 2.85 20                              |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level, Holding times for preparation or analysis exceeded  
H Permit Limit  
PL  
C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit  
E Value above quantitation range  
ND Not Detected at the Reporting Limit

Original



Neilson Research Corporation  
245 S Grape St  
Medford, OR 97501  
TEL: (541) 770-5678 FAX: (541) 770-2901  
Website: www.nrclabs.com

# QC SUMMARY REPORT

WO#: 20110157  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** TOC\_5310C

|                       |                  |                     |             |                          |                                                        |
|-----------------------|------------------|---------------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: LCS @ 1    | SampleType: LCS  | TestCode: TOC_5310C | Units: mg/L | Prep Date:               | RunNo: 15923                                           |
| Client ID: LCSW       | Batch ID: R15923 | TestNo: A5310C      |             | Analysis Date: 11/9/2020 | SeqNo: 241816                                          |
| Analyte               | Result           | PQL                 | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Organic Carbon, Total | 0.879            | 0.100               | 1.000       | 0                        | 87.9 85 115                                            |

|                       |                  |                     |             |                          |                                                        |
|-----------------------|------------------|---------------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: MBLK       | SampleType: MBLK | TestCode: TOC_5310C | Units: mg/L | Prep Date:               | RunNo: 15923                                           |
| Client ID: PBW        | Batch ID: R15923 | TestNo: A5310C      |             | Analysis Date: 11/9/2020 | SeqNo: 241817                                          |
| Analyte               | Result           | PQL                 | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Organic Carbon, Total | ND               | 0.100               |             |                          |                                                        |

|                            |                  |                     |             |                          |                                                        |
|----------------------------|------------------|---------------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: 20110191-03ADUP | SampleType: DUP  | TestCode: TOC_5310C | Units: mg/L | Prep Date:               | RunNo: 15923                                           |
| Client ID: BatchQC         | Batch ID: R15923 | TestNo: A5310C      |             | Analysis Date: 11/9/2020 | SeqNo: 241833                                          |
| Analyte                    | Result           | PQL                 | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Organic Carbon, Total      | 0.252            | 0.100               |             |                          | 0.2576 2.36 25                                         |

|                           |                  |                     |             |                          |                                                        |
|---------------------------|------------------|---------------------|-------------|--------------------------|--------------------------------------------------------|
| Sample ID: 20110191-04AMS | SampleType: MS   | TestCode: TOC_5310C | Units: mg/L | Prep Date:               | RunNo: 15923                                           |
| Client ID: BatchQC        | Batch ID: R15923 | TestNo: A5310C      |             | Analysis Date: 11/9/2020 | SeqNo: 241837                                          |
| Analyte                   | Result           | PQL                 | SPK value   | SPK Ref Val              | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Organic Carbon, Total     | 3.51             | 0.100               | 2.500       | 1.010                    | 80 120                                                 |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level, Holding times for preparation or analysis exceeded  
H Permit Limit  
PL  
C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit  
E Value above quantitation range  
ND Not Detected at the Reporting Limit

Original



Neilson Research Corporation  
245 S Grape St  
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TEL: (541) 770-5678 FAX: (541) 770-2901  
Website: [www.nrclabs.com](http://www.nrclabs.com)

## Sample Log-In Check List

Client Name: **GrantsPassWF**

Work Order Number: **20110157**

RcptNo: **1**

Logged by: **Denise Neal** **11/4/2020 11:57:00 AM**

Completed By: **Krizzle Calip** **11/4/2020 4:05:16 PM**

Reviewed By: **Tamra Schmedemann** **12/18/2020 8:00:20 AM**

*Denise Neal*  
*Krizzle Calip*  
*Tamra Schmedemann*

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐  
4. Shipping container/cooler in good condition? Yes ☒ No ☐  
Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒  
No. Seal Date: Signed By:  
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
6. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☐ No ☒ NA ☐

### Samples were collected the same day and chilled.

7. Sample(s) in proper container(s)? Yes ☒ No ☐  
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐  
10. Was preservative added to bottles? Yes ☒ No ☐ NA ☐  
HNO<sub>3</sub> pH<2  
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☒  
12. Were any sample containers received broken? Yes ☐ No ☒  
13. Does paperwork match bottle labels? Yes ☒ No ☐  
(Note discrepancies on chain of custody)  
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
15. Is it clear what analyses were requested? Yes ☒ No ☐  
16. Were all holding times able to be met? Yes ☒ No ☐  
(If no, notify customer for authorization.)

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

|                      |                      |       |                                                                                                                               |
|----------------------|----------------------|-------|-------------------------------------------------------------------------------------------------------------------------------|
| Person Notified:     | <input type="text"/> | Date: | <input type="text"/>                                                                                                          |
| By Whom:             | <input type="text"/> | Via:  | <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person |
| Regarding:           | <input type="text"/> |       |                                                                                                                               |
| Client Instructions: | <input type="text"/> |       |                                                                                                                               |

18. Additional remarks:

The sample submitted was tan in color and contained visible sediments.

### Cooler Information

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1         | 11.6    | Good      |             |         |           | TRS       |

## EPA 100.1 - Asbestos in Water (all sizes) Final Report

**Job Number:** 201301

**Client:** Neilson Research Corp  
**Address:** 245 S Grape St  
Medford, OR 97501

**Report Number:** 201301R01

**Report Date:** 11/10/2020

**Project Name:**

**Project No.:**

**PO Number:** 1273

**PWS ID:**

**Reference No.:**

Enclosed please find results for samples submitted to our laboratory. A list of samples and analyses follows:

| Lab/Cor Sample # | Client Sample # and Description                                      | Analysis                                     | Analysis Notes | Date Received: |
|------------------|----------------------------------------------------------------------|----------------------------------------------|----------------|----------------|
| 201301 - S1      | 20110157-01J - Bear Creek<br>Greenway Bridge, WA Water ID#: 11924019 | EPA 100.1 - Asbestos in<br>Water (all sizes) |                | 11/5/2020      |

EPA 100.1 - Asbestos in Water (all sizes) Preparation and analysis of the above samples was conducted in accordance with the EPA method #100.1. In this method, samples are taken from an affected water supply to measure the amount of asbestos contamination in the system. Samples with known organic interferences are treated with ozone/UV treatment to oxidize any suspended material in the water.

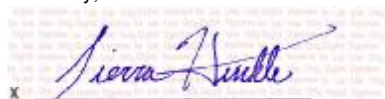
Each sample was shaken, then sonicated briefly in a Health Sonics Ultrasonic Cleaner to distribute particulate evenly. Several aliquots were filtered onto 0.1 µm, 25 mm mixed cellulose ester filters. Briefly, the samples were collapsed with a solution of N,N-dimethylformamide and acetic acid and if no ozone/UV treatment was applied, they were etched in a low temperature plasma etcher to remove the top surface of the filter and other organics. Then the samples were coated at high vacuum with a thin layer of carbon. This coated sample was then placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Each aliquot was examined at low magnification to determine the best particulate loading for analysis. Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification of 20,000x, with an accelerating voltage of 100 KV, scanning for fibers > 0.5µm in length. At least twenty grid openings were analyzed (or 100 structures) over three grid preparations. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**Disclaimer** The results reported relate only to the samples tested or analyzed; the laboratory is not responsible for data collected by personnel who are not affiliated with the laboratory. Results reported in both structures/cm3 and structures/mm2 are dependent on the sample volume and area. These parameters are measured and recorded by non-laboratory personnel and are not covered by the laboratory's accreditation. Interpretation of these results is the sole responsibility of the client.

If further clarification of these results is needed, please call us. Thank you for allowing the staff at Lab/Cor, Inc. the opportunity to provide you with the analytical services.

Sincerely,

  
x  
**Sierra Hinkle**  
Technician/Analyst

## EPA 100.1 - Asbestos in Water (all sizes) Summary Data - Final Report

Job Number: 201301      SEA  
Client: Neilson Research Corp

Report Number: 201301R01

Project Name:

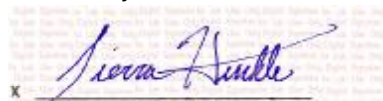
Date Received: 11/5/2020

|                                                                 |                                            |
|-----------------------------------------------------------------|--------------------------------------------|
| Lab/Cor Sample No.: S1                                          | Sample Area/Mass/Volume (ml) : 800         |
| Client Sample No.: 20110157-01J                                 | Lab Filter Area (mm2) : 201                |
| Description: Bear Creek Greenway Bridge, WA Water ID#: 11924019 | Grid Openings Analyzed : 20                |
| Filter Fraction: 1      Aliquot Dilution: 1                     | Average Grid Opening Area : 0.0116         |
| Begin Volume: 10 ml      Final Dilution: 1                      | Area Analyzed (mm2) : 0.232                |
| Volume Taken: 10 ml                                             | Analytical Sens. (struc/MFL>10-um) : 0.087 |

|            |               |                |               |
|------------|---------------|----------------|---------------|
| Analyst(s) | Analysis Date | Microscope     | Magnification |
| SH         | 11/10/2020    | Hitachi 7000FA | 10000         |

| Structure Type                     | Concentration MFL>10-um | 95% Confidence Interval MFL>10-um | Structure Count <sup>1</sup> Prim/Total |
|------------------------------------|-------------------------|-----------------------------------|-----------------------------------------|
| TEM Water Amphibole - 100.1 Rules  | 0.173                   | 0.021 - 0.626 - Poisson           | 2                                       |
| TEM Water Chrysotile - 100.1 Rules | 0.087                   | 0.002 - 0.483 - Poisson           | 1                                       |
| TEM Water Total - 100.1 Rules      | 0.26                    | 0.054 - 0.76 - Poisson            | 3                                       |
| TEM Water >10µm Asbestos Length    | 0.087                   | 0.002 - 0.483 - Poisson           | 1                                       |

Reviewed by:

  
Sierra Hinkle  
Technician/Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## EPA 100.1 - Asbestos in Water (all sizes) Raw Data - Final Report

Job Number: 201301      SEA  
Client: Neilson Research Corp

EPA 100.1 Non Potable

Report Number: 201301R01

Project Name:

Date Received: 11/5/2020

Project No.:

Lab/Cor Sample No: S1

Client Sample No: 20110157-01J

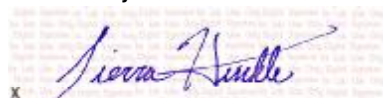
Description: Bear Creek Greenway Bridge, WA Water ID#: 11924019

| Gr | No. | Loc. | ID  | Prim | Tot | Class       | Length | Width    | Aspect | Analyte    | Elements           | Comment    | Count Categories            |
|----|-----|------|-----|------|-----|-------------|--------|----------|--------|------------|--------------------|------------|-----------------------------|
| G7 | 1   | C32  | CDQ | 1    |     | Fiber       | 8.27   | 0.09     | 91.9   | Chrysotile | Mg, Si             |            | 100_1Chry, 100_1Tot         |
|    |     |      |     |      |     | Item Type   |        | Item Num |        |            | Confirmed          | Comment    |                             |
|    |     |      |     |      |     | Diffraction |        | F62367DF |        |            | SH                 | 11/10/2020 | 0.53nm ROW SPACING          |
|    |     |      |     |      |     | Spectra     |        | F62367SP |        |            | SH                 | 11/10/2020 |                             |
|    |     |      |     |      |     | Brightfield |        | F62367BF |        |            |                    |            |                             |
| G7 | 1   | C32  | ADQ | 2    |     | Bundle      | 26.1   | 2.49     | 10.5   | Actinolite | Mg, Al, Si, Ca, Fe |            | 100_1Amph, 100_1Tot, Asb>10 |
|    |     |      |     |      |     | Item Type   |        | Item Num |        |            | Confirmed          | Comment    |                             |
|    |     |      |     |      |     | Diffraction |        | F62368DF |        |            | SH                 | 11/10/2020 | 0.53nm ROW SPACING          |
|    |     |      |     |      |     | Spectra     |        | F62368SP |        |            | SH                 | 11/10/2020 |                             |
|    |     |      |     |      |     | Brightfield |        | F62368BF |        |            |                    |            |                             |
| G7 | 2   | E31  |     |      |     | NSD         |        |          |        |            |                    |            |                             |
| G7 | 3   | E32  |     |      |     | NSD         |        |          |        |            |                    |            |                             |
| G7 | 4   | F31  | AQ  | 3    |     | Bundle      | 7      | 1        | 7      | Actinolite | Mg, Si, Si, Ca, Fe |            | 100_1Amph, 100_1Tot         |
| G7 | 5   | F32  |     |      |     | NSD         |        |          |        |            |                    |            |                             |
| G7 | 6   | G31  |     |      |     | NSD         |        |          |        |            |                    |            |                             |
| G7 | 7   | G32  |     |      |     | NSD         |        |          |        |            |                    |            |                             |
| G8 | 8   | C31  |     |      |     | NSD         |        |          |        |            |                    |            |                             |
| G8 | 9   | E32  |     |      |     | NSD         |        |          |        |            |                    |            |                             |
| G8 | 10  | F31  |     |      |     | NSD         |        |          |        |            |                    |            |                             |
| G8 | 11  | F32  |     |      |     | NSD         |        |          |        |            |                    |            |                             |
| G8 | 12  | G31  |     |      |     | NSD         |        |          |        |            |                    |            |                             |
| G8 | 13  | G32  |     |      |     | NSD         |        |          |        |            |                    |            |                             |
| G8 | 14  | H31  |     |      |     | NSD         |        |          |        |            |                    |            |                             |
| G9 | 15  | C41  |     |      |     | NSD         |        |          |        |            |                    |            |                             |
| G9 | 16  | C42  |     |      |     | NSD         |        |          |        |            |                    |            |                             |
| G9 | 17  | E41  |     |      |     | NSD         |        |          |        |            |                    |            |                             |
| G9 | 18  | E42  |     |      |     | NSD         |        |          |        |            |                    |            |                             |
| G9 | 19  | F41  |     |      |     | NSD         |        |          |        |            |                    |            |                             |
| G9 | 20  | F42  |     |      |     | NSD         |        |          |        |            |                    |            |                             |

### Count Categories

|           |                                   |           |                                    |          |                               |
|-----------|-----------------------------------|-----------|------------------------------------|----------|-------------------------------|
| 100_1Amph | TEM Water Amphibole - 100.1 Rules | 100_1Chry | TEM Water Chrysotile - 100.1 Rules | 100_1Tot | TEM Water Total - 100.1 Rules |
| Asb>10    | TEM Water >10µm Asbestos Length   |           |                                    |          |                               |

Reviewed by:



Sierra Hinkle  
Technician/Analyst



908 North Temperance Ave. ▽ Clovis, CA 93611 ▽ Phone 559-275-2175 ▽ Fax 559-275-4422

NELAP Certification Number: CA00046 (HW)  
State Certification Number: CA1312 (WW & DW)

December 10, 2020

Nielson Research Corporation  
245nS Grape St.  
Medford, Oregon 97501

Attn: Tamra Schmedemann

Subject: Report of Data: 94056

Results in this report apply to the sample analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Dear Ms. Schmedemann,

Two water samples were received on November 11, 2020. Written results are being provided on this December 10, 2020, for the requested analysis. All holding times were met.

For the PFAS analysis, the sample was extracted according to APPL SOP PRE537 and analyzed according to APPL SOP ANA537 and DoD QSM Table B-15. Sample 20110157-01K recovered below the lower control limit for five extracted internal standards.

For the EPA 1613 analysis, the sample was prepared according to the method.

If you have any questions or require further information, please contact us at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.

Paula McCartney, Laboratory Director  
APPL, Inc.

PM/lac  
Enclosure  
cc: File

## PFAS IN WATER

Nielson Research Corporation  
245 S Grape St  
Meford, OR 97501

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: NCR Labs

Project: 20110157

Sample ID: 20110157-01K

Sample Collection Date: 11/04/20

ARF: 94056

APPL ID: BA21548

QCG: #PFASC-201117A-258898

| Method | Analyte                    | Result       | PQL    | MDL  | Units | Extraction Date | Analysis Date |
|--------|----------------------------|--------------|--------|------|-------|-----------------|---------------|
| B-15   | 11-CL-PF3OUDS              | Not detected | 8.0    | 1.20 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | 9-CL-PF3ONS                | Not detected | 8.0    | 1.18 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | ADONA                      | Not detected | 8.0    | 1.30 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | FTS 4:2                    | Not detected | 8.0    | 0.54 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | FTS 6:2                    | Not detected | 8.0    | 0.45 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | FTS 8:2                    | Not detected | 8.0    | 1.01 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | HFPO-DA                    | Not detected | 8.0    | 2.45 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | N-ETFOSA                   | Not detected | 8.0    | 3.00 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | N-ETFOSAA                  | Not detected | 8.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | N-ETFOSE                   | Not detected | 8.0    | 3.00 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | N-MEFOSA                   | Not detected | 8.0    | 3.00 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | N-MEFOSAA                  | Not detected | 8.0    | 0.36 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | N-MEFOSE                   | Not detected | 8.0    | 3.00 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | PFBA                       | 1.4 J        | 8.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | PFBS                       | 5.1          | 5.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | PFDA                       | Not detected | 5.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | PFDOA                      | Not detected | 5.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | PFDS                       | Not detected | 5.0    | 0.32 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | PFHPA                      | 0.64 J       | 5.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | PFHPS                      | Not detected | 5.0    | 0.28 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | PFHXA                      | 4.6 J        | 5.0    | 0.32 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | PFHXS                      | 1.3 J        | 5.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | PFNA                       | Not detected | 5.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | PFNS                       | Not detected | 8.0    | 0.40 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | PFOA                       | 1.5 J        | 5.0    | 0.41 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | PFOS                       | 1.8 J        | 5.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | PFOSA                      | Not detected | 8.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | PFPEA                      | 5.0          | 5.0    | 0.31 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | PFPEs                      | Not detected | 5.0    | 0.29 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | PFTEDA                     | Not detected | 8.0    | 0.43 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | PFTRDA                     | Not detected | 5.0    | 0.29 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | PFUDA                      | Not detected | 5.0    | 0.40 | ng/L  | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: 13C2-4:2FTS (S) | 122          | 50-150 |      | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: 13C2-6:2FTS (S) | 97.7         | 50-150 |      | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: 13C2-8:2FTS (S) | 98.7         | 50-150 |      | %     | 11/17/20        | 11/20/20      |

J = Estimated value.

# = Recovery (or RPD) is outside QC limits.

Quant Method: N  
Run #: 2020-11-1943  
Instrument: Saphira  
Sequence: 2020-11-19  
Dilution Factor: 1  
Initials: HHE

Printed: 11/20/20 1:46:11 PM  
APPL-F1-SC-NoMC-REG MDLs



## PFAS IN WATER

Nielson Research Corporation  
245 S Grape St  
Meford, OR 97501

Attn: NCR Labs

Project: 20110157

**Sample ID: 20110157-01K**

Sample Collection Date: 11/04/20

APPL Inc.

908 North Temperance Avenue  
Clovis, CA 93611

ARF: 94056

**APPL ID: BA21548**

QCG: #PFASC-201117A-258898

| Method | Analyte                     | Result | PQL    | MDL | Units | Extraction Date | Analysis Date |
|--------|-----------------------------|--------|--------|-----|-------|-----------------|---------------|
| B-15   | SURROGATE: 13C2-PFDOA (S)   | 56.5   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: 13C2-PFTEDA (S)  | 53.3   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: 13C3-HFPO-DA (S) | 79.8   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: 13C3-PFBS (S)    | 81.2   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: 13C3-PFHXS (S)   | 89.0   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: 13C4-PFBA (S)    | 48.6 # | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: 13C4-PFHFA (S)   | 85.2   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: 13C5-PFHXA (S)   | 81.8   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: 13C5-PFPEA (S)   | 69.3   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: 13C6-PFDA (S)    | 80.1   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: 13C7-PFUDA (S)   | 75.1   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: 13C8-PFOA (S)    | 97.4   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: 13C8-PFOS (S)    | 89.3   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: 13C8-PFOSA (S)   | 75.4   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: 13C9-PFNA (S)    | 85.7   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: D3-MEFOSA (S)    | 37.0 # | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: D3-NMEFOSAA (S)  | 54.4   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: D5-ETFOSA (S)    | 32.5 # | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: D5-NETFOSAA (S)  | 51.3   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: D7-MEFOSE (S)    | 45.4 # | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| B-15   | SURROGATE: D9-ETFOSE (S)    | 46.1 # | 50-150 |     | %     | 11/17/20        | 11/20/20      |

J = Estimated value.

# = Recovery (or RPD) is outside QC limits.

Quant Method: N  
Run #: 2020-11-1943  
Instrument: Saphira  
Sequence: 2020-11-19  
Dilution Factor: 1  
Initials: HHE

Printed: 11/20/20 1:46:11 PM  
APPL-F1-SC-NoMC-REG MDLs

## **EPA 1613B DIOXINS FURANS LOW LEV**

Nielson Research Corporation  
245 S Grape St  
Meford, OR 97501

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: NCR Labs

Project: 20110157

**Sample ID: 20110157-01G**

Sample Collection Date: 11/04/20

ARF: 94056

**APPL ID: BA21547**

QCG: \$1613LL-201119A-259001

| Method   | Analyte                                | Result       | PQL    | EDL/EMPC | Units | Ext Date | Analysis Date |
|----------|----------------------------------------|--------------|--------|----------|-------|----------|---------------|
| EPA 1613 | 1,2,3,4,6,7,8-HPCDD                    | Not detected | 25.0   | 1.7DL    | pg/L  | 11/19/20 | 11/20/20      |
| EPA 1613 | 1,2,3,4,6,7,8-HPCDF                    | Not detected | 25.0   | 1.3DL    | pg/L  | 11/19/20 | 11/20/20      |
| EPA 1613 | 1,2,3,4,7,8,9-HPCDF                    | Not detected | 25.0   | 1.8DL    | pg/L  | 11/19/20 | 11/20/20      |
| EPA 1613 | 1,2,3,4,7,8-HXCDD                      | Not detected | 25.0   | 1.5DL    | pg/L  | 11/19/20 | 11/20/20      |
| EPA 1613 | 1,2,3,4,7,8-HXCDF                      | Not detected | 25.0   | 1.1DL    | pg/L  | 11/19/20 | 11/20/20      |
| EPA 1613 | 1,2,3,6,7,8-HXCDD                      | Not detected | 25.0   | 1.6DL    | pg/L  | 11/19/20 | 11/20/20      |
| EPA 1613 | 1,2,3,6,7,8-HXCDF                      | Not detected | 25.0   | 1.7PC    | pg/L  | 11/19/20 | 11/20/20      |
| EPA 1613 | 1,2,3,7,8,9-HXCDD                      | Not detected | 25.0   | 3.4PC    | pg/L  | 11/19/20 | 11/20/20      |
| EPA 1613 | 1,2,3,7,8,9-HXCDF                      | Not detected | 25.0   | 1.9PC    | pg/L  | 11/19/20 | 11/20/20      |
| EPA 1613 | 1,2,3,7,8-PECDD                        | Not detected | 25.0   | 0.97PC   | pg/L  | 11/19/20 | 11/20/20      |
| EPA 1613 | 1,2,3,7,8-PECDF                        | Not detected | 25.0   | 2.1PC    | pg/L  | 11/19/20 | 11/20/20      |
| EPA 1613 | 2,3,4,6,7,8-HXCDF                      | Not detected | 25.0   | 1.2DL    | pg/L  | 11/19/20 | 11/20/20      |
| EPA 1613 | 2,3,4,7,8-PECDF                        | Not detected | 25.0   | 2.5DL    | pg/L  | 11/19/20 | 11/20/20      |
| EPA 1613 | 2,3,7,8-TCDD                           | Not detected | 5.0    | 2.8DL    | pg/L  | 11/19/20 | 11/20/20      |
| EPA 1613 | 2,3,7,8-TCDF                           | Not detected | 5.0    | 1.6DL    | pg/L  | 11/19/20 | 11/20/20      |
| EPA 1613 | OCDD                                   | Not detected | 50.0   | 14PC     | pg/L  | 11/19/20 | 11/20/20      |
| EPA 1613 | OCDF                                   | Not detected | 50.0   | 3.4DL    | pg/L  | 11/19/20 | 11/20/20      |
| EPA 1613 | TEQ                                    | Not detected | NA     |          |       | 11/19/20 | 11/20/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,4,6,7,8-HPCDD (S) | 77.5         | 26-166 |          | %     | 11/19/20 | 11/20/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,4,6,7,8-HPCDF (S) | 70.9         | 21-158 |          | %     | 11/19/20 | 11/20/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,4,7,8,9-HPCDF (S) | 70.3         | 20-186 |          | %     | 11/19/20 | 11/20/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,4,7,8-HXCDD (S)   | 80.0         | 21-193 |          | %     | 11/19/20 | 11/20/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,4,7,8-HXCDF (S)   | 77.0         | 19-202 |          | %     | 11/19/20 | 11/20/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,6,7,8-HXCDD (S)   | 74.7         | 25-163 |          | %     | 11/19/20 | 11/20/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,6,7,8-HXCDF (S)   | 70.5         | 21-159 |          | %     | 11/19/20 | 11/20/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,7,8,9-HXCDF (S)   | 68.6         | 17-205 |          | %     | 11/19/20 | 11/20/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,7,8-PECDD (S)     | 60.0         | 21-227 |          | %     | 11/19/20 | 11/20/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,7,8-PECDF (S)     | 63.3         | 21-192 |          | %     | 11/19/20 | 11/20/20      |
| EPA 1613 | SURROGATE: 13C-2,3,4,6,7,8-HXCDF (S)   | 74.7         | 22-176 |          | %     | 11/19/20 | 11/20/20      |
| EPA 1613 | SURROGATE: 13C-2,3,4,7,8-PECDF (S)     | 59.8         | 13-328 |          | %     | 11/19/20 | 11/20/20      |
| EPA 1613 | SURROGATE: 13C-2,3,7,8-TCDD (S)        | 62.2         | 20-175 |          | %     | 11/19/20 | 11/20/20      |
| EPA 1613 | SURROGATE: 13C-2,3,7,8-TCDF (S)        | 65.7         | 22-152 |          | %     | 11/19/20 | 11/20/20      |
| EPA 1613 | SURROGATE: 13C-OCDD (S)                | 70.5         | 13-199 |          | %     | 11/19/20 | 11/20/20      |

Quant Method: 201115\_1613  
Run #: 201120\_HR\_06  
Instrument: Magneto  
Sequence: 201120  
Dilution Factor: 1  
Initials: RP

Printed: 11/25/20 10:35:21 AM  
Form 1 - APPL Standard GC - No MC

## Method Blank PFAS IN WATER

Blank Name/QCG: 201117W-21456 - 258898  
Batch ID: #PFASC-201117A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

| Sample Type | Analyte                    | Result       | PQL    | MDL  | Units | Extraction Date | Analysis Date |
|-------------|----------------------------|--------------|--------|------|-------|-----------------|---------------|
| BLANK       | 11-CL-PF3OUDS              | Not detected | 8.0    | 1.20 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | 9-CL-PF3ONS                | Not detected | 8.0    | 1.18 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | ADONA                      | Not detected | 8.0    | 1.30 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | FTS 4:2                    | Not detected | 8.0    | 0.54 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | FTS 6:2                    | Not detected | 8.0    | 0.45 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | FTS 8:2                    | Not detected | 8.0    | 1.01 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | HFPO-DA                    | Not detected | 8.0    | 2.45 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | N-ETFOSA                   | Not detected | 8.0    | 3.00 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | N-ETFOSAA                  | Not detected | 8.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | N-ETFOSE                   | Not detected | 8.0    | 3.00 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | N-MEFOSA                   | Not detected | 8.0    | 3.00 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | N-MEFOSAA                  | Not detected | 8.0    | 0.36 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | N-MEFOSE                   | Not detected | 8.0    | 3.00 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | PFBA                       | Not detected | 8.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | PFBS                       | Not detected | 5.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | PFDA                       | Not detected | 5.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | PFDOA                      | Not detected | 5.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | PFDS                       | Not detected | 5.0    | 0.32 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | PFHPA                      | Not detected | 5.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | PFHPS                      | Not detected | 5.0    | 0.28 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | PFHXA                      | Not detected | 5.0    | 0.32 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | PFHXS                      | Not detected | 5.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | PFNA                       | Not detected | 5.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | PFNS                       | Not detected | 8.0    | 0.40 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | PFOA                       | Not detected | 5.0    | 0.41 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | PFOS                       | Not detected | 5.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | PFOSA                      | Not detected | 8.0    | 0.25 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | PFPEA                      | Not detected | 5.0    | 0.31 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | PFPEs                      | Not detected | 5.0    | 0.29 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | PFTEDA                     | Not detected | 8.0    | 0.43 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | PFTRDA                     | Not detected | 5.0    | 0.29 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | PFUDA                      | Not detected | 5.0    | 0.40 | ng/L  | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: 13C2-4:2FTS (S) | 100          | 50-150 |      | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: 13C2-6:2FTS (S) | 95.9         | 50-150 |      | %     | 11/17/20        | 11/20/20      |

Quant Method: N  
Run #: 2020-11-192  
Instrument: Saphira  
Sequence: 2020-11-19  
Initials: HHE

GC SC-Blank-REG MDLs  
Printed: 11/20/20 1:46:10 PM

## Method Blank PFAS IN WATER

Blank Name/QCG: **201117W-21456 - 258898**  
Batch ID: #PFASC-201117A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

| Sample Type | Analyte                     | Result | PQL    | MDL | Units | Extraction Date | Analysis Date |
|-------------|-----------------------------|--------|--------|-----|-------|-----------------|---------------|
| BLANK       | SURROGATE: 13C2-8:2FTS (S)  | 89.2   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: 13C2-PFDOA (S)   | 69.8   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: 13C2-PFTEDA (S)  | 73.0   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: 13C3-HFPO-DA (S) | 95.5   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: 13C3-PFBS (S)    | 96.0   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: 13C3-PFHXS (S)   | 100.0  | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: 13C4-PFBA (S)    | 96.3   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: 13C4-PFHPA (S)   | 101    | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: 13C5-PFHXA (S)   | 97.5   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: 13C5-PFPEA (S)   | 98.2   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: 13C6-PFDA (S)    | 81.6   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: 13C7-PFUDA (S)   | 80.5   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: 13C8-PFOA (S)    | 109    | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: 13C8-PFOS (S)    | 96.0   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: 13C8-PFOSA (S)   | 82.2   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: 13C9-PFNA (S)    | 104    | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: D3-MEFOSA (S)    | 59.8   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: D3-NMEFOSAA (S)  | 52.4   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: D5-ETFOSA (S)    | 61.5   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: D5-NETFOSAA (S)  | 67.5   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: D7-MEFOSE (S)    | 75.6   | 50-150 |     | %     | 11/17/20        | 11/20/20      |
| BLANK       | SURROGATE: D9-ETFOSE (S)    | 75.0   | 50-150 |     | %     | 11/17/20        | 11/20/20      |

Quant Method: N  
Run #: 2020-11-192  
Instrument: Saphira  
Sequence: 2020-11-19  
Initials: HHE

GC SC-Blank-REG MDLs  
Printed: 11/20/20 1:46:10 PM

## Laboratory Control Spike Recoveries

### PFAS IN WATER

APPL ID: 201117W-21456 LCS - 258898

Batch ID: #PFASC-201117A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

| Compound Name | Spike Lvl<br>ng/L | SPK Result<br>ng/L | DUP Result<br>ng/L | SPK %<br>Recovery | DUP %<br>Recovery | Recovery<br>Limits | RPD<br>% | RPD<br>Limits |
|---------------|-------------------|--------------------|--------------------|-------------------|-------------------|--------------------|----------|---------------|
| 11-CL-PF3OUDS | 18.9              | 14.8               | 13.5               | 78.5              | 71.6              | 54-138             | 9.2      | 30            |
| 9-CL-PF3ONS   | 18.7              | 17.7               | 16.4               | 94.8              | 87.9              | 62-140             | 7.6      | 30            |
| ADONA         | 18.9              | 22.8               | 21.0               | 121               | 111               | 61-169             | 8.2      | 30            |
| FTS 4:2       | 18.7              | 19.5               | 19.7               | 104               | 105               | 63-143             | 1.0      | 30            |
| FTS 6:2       | 19.0              | 24.3               | 18.3               | 128               | 96.4              | 64-140             | 28.2     | 30            |
| FTS 8:2       | 19.2              | 22.4               | 16.6               | 117               | 86.6              | 67-138             | 29.7     | 30            |
| HFPO-DA       | 20.0              | 22.8               | 20.8               | 114               | 104               | 44-175             | 9.2      | 30            |
| N-ETFOSA      | 20.0              | 20.8               | 17.9               | 104               | 89.5              | 76-137             | 15.0     | 30            |
| N-ETFOSAA     | 20.0              | 19.1               | 20.3               | 95.5              | 102               | 61-135             | 6.1      | 30            |
| N-ETFOSE      | 20.0              | 19.1               | 19.7               | 95.5              | 98.5              | 39-150             | 3.1      | 30            |
| N-MEFOSA      | 20.0              | 19.1               | 21.1               | 95.5              | 106               | 68-141             | 10.0     | 30            |
| N-MEFOSAA     | 20.0              | 20.7               | 19.5               | 104               | 97.5              | 65-136             | 6.0      | 30            |
| N-MEFOSE      | 20.0              | 21.8               | 19.7               | 109               | 98.5              | 68-144             | 10.1     | 30            |
| PFBA          | 20.0              | 20.9               | 19.2               | 105               | 96.0              | 73-129             | 8.5      | 30            |
| PFBS          | 17.7              | 17.9               | 17.3               | 101               | 97.8              | 72-130             | 3.4      | 30            |
| PFDA          | 20.0              | 18.6               | 18.4               | 93.0              | 92.0              | 71-129             | 1.1      | 30            |
| PFDOA         | 20.0              | 20.3               | 17.6               | 102               | 88.0              | 72-134             | 14.2     | 30            |
| PFDS          | 19.3              | 14.1               | 13.5               | 73.2              | 70.1              | 53-142             | 4.3      | 30            |
| PFHPA         | 20.0              | 20.7               | 18.0               | 104               | 90.0              | 72-130             | 14.0     | 30            |
| PFHPS         | 19.0              | 18.7               | 18.8               | 98.3              | 98.8              | 69-134             | 0.53     | 30            |
| PFHXA         | 20.0              | 21.2               | 18.3               | 106               | 91.5              | 72-129             | 14.7     | 30            |
| PFHXS         | 18.2              | 17.4               | 17.2               | 95.5              | 94.4              | 68-131             | 1.2      | 30            |
| PFNA          | 20.0              | 19.2               | 20.2               | 96.0              | 101               | 69-130             | 5.1      | 30            |
| PFNS          | 19.2              | 18.3               | 15.8               | 95.3              | 82.3              | 69-127             | 14.7     | 30            |

Comments:

| <u>Primary</u>    | <u>SPK</u>   | <u>DUP</u>   |
|-------------------|--------------|--------------|
| Quant Method :    | N            | N            |
| Extraction Date : | 11/17/20     | 11/17/20     |
| Analysis Date :   | 11/20/20     | 11/20/20     |
| Instrument :      | Saphira      | Saphira      |
| Run :             | 2020-11-1927 | 2020-11-1928 |
| Initials :        | HHE          |              |

## Laboratory Control Spike Recoveries

### PFAS IN WATER

APPL ID: 201117W-21456 LCS - 258898

Batch ID: #PFASC-201117A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

| Compound Name               | Spike Lvl<br>ng/L | SPK Result<br>ng/L | DUP Result<br>ng/L | SPK %<br>Recovery | DUP %<br>Recovery | Recovery<br>Limits | RPD<br>% | RPD<br>Limits |
|-----------------------------|-------------------|--------------------|--------------------|-------------------|-------------------|--------------------|----------|---------------|
| PFOA                        | 20.0              | 19.0               | 19.7               | 95.0              | 98.5              | 71-133             | 3.6      | 30            |
| PFOS                        | 18.5              | 19.2               | 16.2               | 104               | 87.3              | 65-140             | 16.9     | 30            |
| PFOSA                       | 20.0              | 20.3               | 18.5               | 102               | 92.5              | 67-137             | 9.3      | 30            |
| PFPEA                       | 20.0              | 20.2               | 18.4               | 101               | 92.0              | 72-129             | 9.3      | 30            |
| PFPEs                       | 18.8              | 19.5               | 18.2               | 104               | 97.0              | 71-127             | 6.9      | 30            |
| PFTEDA                      | 20.0              | 20.2               | 18.0               | 101               | 90.0              | 71-132             | 11.5     | 30            |
| PFTRDA                      | 20.0              | 21.2               | 18.6               | 106               | 93.0              | 65-144             | 13.1     | 30            |
| PFUDA                       | 20.0              | 20.3               | 19.1               | 102               | 95.5              | 69-133             | 6.1      | 30            |
| SURROGATE: 13C2-4:2FTS (S)  | 100               | 113                | 101                | 113               | 101               | 50-150             |          |               |
| SURROGATE: 13C2-6:2FTS (S)  | 100               | 102                | 107                | 102               | 107               | 50-150             |          |               |
| SURROGATE: 13C2-8:2FTS (S)  | 100               | 97.6               | 106                | 97.6              | 106               | 50-150             |          |               |
| SURROGATE: 13C2-PFDOA (S)   | 100               | 76.0               | 75.7               | 76.0              | 75.7              | 50-150             |          |               |
| SURROGATE: 13C2-PFTEDA (S)  | 100               | 84.9               | 83.5               | 84.9              | 83.5              | 50-150             |          |               |
| SURROGATE: 13C3-HFPO-DA (S) | 100               | 92.4               | 90.5               | 92.4              | 90.5              | 50-150             |          |               |
| SURROGATE: 13C3-PFBS (S)    | 100               | 102                | 101                | 102               | 101               | 50-150             |          |               |
| SURROGATE: 13C3-PFHXS (S)   | 100               | 108                | 101                | 108               | 101               | 50-150             |          |               |
| SURROGATE: 13C4-PFBA (S)    | 100               | 105                | 100                | 105               | 100               | 50-150             |          |               |
| SURROGATE: 13C4-PFHFA (S)   | 100               | 109                | 106                | 109               | 106               | 50-150             |          |               |
| SURROGATE: 13C5-PFHXA (S)   | 100               | 108                | 106                | 108               | 106               | 50-150             |          |               |
| SURROGATE: 13C5-PFPEA (S)   | 100               | 106                | 104                | 106               | 104               | 50-150             |          |               |
| SURROGATE: 13C6-PFDA (S)    | 100               | 91.5               | 91.5               | 91.5              | 91.5              | 50-150             |          |               |
| SURROGATE: 13C7-PFUDA (S)   | 100               | 90.9               | 82.0               | 90.9              | 82.0              | 50-150             |          |               |
| SURROGATE: 13C8-PFOA (S)    | 100               | 115                | 107                | 115               | 107               | 50-150             |          |               |
| SURROGATE: 13C8-PFOS (S)    | 100               | 111                | 111                | 111               | 111               | 50-150             |          |               |

Comments:

| <u>Primary</u>    | <u>SPK</u>   | <u>DUP</u>   |
|-------------------|--------------|--------------|
| Quant Method :    | N            | N            |
| Extraction Date : | 11/17/20     | 11/17/20     |
| Analysis Date :   | 11/20/20     | 11/20/20     |
| Instrument :      | Saphira      | Saphira      |
| Run :             | 2020-11-1927 | 2020-11-1928 |
| Initials :        | HHE          |              |

## Laboratory Control Spike Recoveries

### PFAS IN WATER

APPL ID: 201117W-21456 LCS - 258898

Batch ID: #PFASC-201117A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

| Compound Name              | Spike Lvl<br>ng/L | SPK Result<br>ng/L | DUP Result<br>ng/L | SPK %<br>Recovery | DUP %<br>Recovery | Recovery<br>Limits | RPD<br>% | RPD<br>Limits |
|----------------------------|-------------------|--------------------|--------------------|-------------------|-------------------|--------------------|----------|---------------|
| SURROGATE: 13C8-PFOSA (S)  | 100               | 87.3               | 96.6               | 87.3              | 96.6              | 50-150             |          |               |
| SURROGATE: 13C9-PFNA (S)   | 100               | 111                | 106                | 111               | 106               | 50-150             |          |               |
| SURROGATE: D3-MEFOSA (S)   | 100               | 55.5               | 56.4               | 55.5              | 56.4              | 50-150             |          |               |
| SURROGATE: D3-NMEFOSAA (S) | 100               | 62.1               | 66.4               | 62.1              | 66.4              | 50-150             |          |               |
| SURROGATE: D5-ETFOSA (S)   | 100               | 53.4               | 60.7               | 53.4              | 60.7              | 50-150             |          |               |
| SURROGATE: D5-NETFOSAA (S) | 100               | 85.8               | 71.6               | 85.8              | 71.6              | 50-150             |          |               |
| SURROGATE: D7-MEFOSE (S)   | 100               | 65.0               | 83.6               | 65.0              | 83.6              | 50-150             |          |               |
| SURROGATE: D9-ETFOSE (S)   | 100               | 66.5               | 76.0               | 66.5              | 76.0              | 50-150             |          |               |

Comments: \_\_\_\_\_

| <u>Primary</u>    | <u>SPK</u>   | <u>DUP</u>   |
|-------------------|--------------|--------------|
| Quant Method :    | N            | N            |
| Extraction Date : | 11/17/20     | 11/17/20     |
| Analysis Date :   | 11/20/20     | 11/20/20     |
| Instrument :      | Saphira      | Saphira      |
| Run :             | 2020-11-1927 | 2020-11-1928 |
| Initials :        | HHE          |              |

# Method Blank

## EPA 1613B DIOXINS FURANS LOW LEV

Blank Name/QCG: 201119W-21547 - 259001  
Batch ID: \$1613LL-201119A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

| Sample Type | Analyte                                | Result       | PQL    | EDL/EMPC | Units | Ext Date | Analysis Date |
|-------------|----------------------------------------|--------------|--------|----------|-------|----------|---------------|
| BLANK       | 1,2,3,4,6,7,8-HPCDD                    | Not detected | 25.0   | 1.2DL    | pg/L  | 11/19/20 | 11/20/20      |
| BLANK       | 1,2,3,4,6,7,8-HPCDF                    | Not detected | 25.0   | 1.5PC    | pg/L  | 11/19/20 | 11/20/20      |
| BLANK       | 1,2,3,4,7,8,9-HPCDF                    | Not detected | 25.0   | 1.2DL    | pg/L  | 11/19/20 | 11/20/20      |
| BLANK       | 1,2,3,4,7,8-HXCDD                      | Not detected | 25.0   | 3.0PC    | pg/L  | 11/19/20 | 11/20/20      |
| BLANK       | 1,2,3,4,7,8-HXCDF                      | Not detected | 25.0   | 1.0DL    | pg/L  | 11/19/20 | 11/20/20      |
| BLANK       | 1,2,3,6,7,8-HXCDD                      | Not detected | 25.0   | 2.5PC    | pg/L  | 11/19/20 | 11/20/20      |
| BLANK       | 1,2,3,6,7,8-HXCDF                      | Not detected | 25.0   | 0.98DL   | pg/L  | 11/19/20 | 11/20/20      |
| BLANK       | 1,2,3,7,8,9-HXCDD                      | Not detected | 25.0   | 1.4DL    | pg/L  | 11/19/20 | 11/20/20      |
| BLANK       | 1,2,3,7,8,9-HXCDF                      | Not detected | 25.0   | 1.5DL    | pg/L  | 11/19/20 | 11/20/20      |
| BLANK       | 1,2,3,7,8-PECDD                        | Not detected | 25.0   | 2.0PC    | pg/L  | 11/19/20 | 11/20/20      |
| BLANK       | 1,2,3,7,8-PECDF                        | Not detected | 25.0   | 2.4DL    | pg/L  | 11/19/20 | 11/20/20      |
| BLANK       | 2,3,4,6,7,8-HXCDF                      | Not detected | 25.0   | 1.1DL    | pg/L  | 11/19/20 | 11/20/20      |
| BLANK       | 2,3,4,7,8-PECDF                        | Not detected | 25.0   | 1.3PC    | pg/L  | 11/19/20 | 11/20/20      |
| BLANK       | 2,3,7,8-TCDD                           | Not detected | 5.0    | 2.3DL    | pg/L  | 11/19/20 | 11/20/20      |
| BLANK       | 2,3,7,8-TCDF                           | Not detected | 5.0    | 2.1DL    | pg/L  | 11/19/20 | 11/20/20      |
| BLANK       | OCDD                                   | Not detected | 50.0   | 2.2PC    | pg/L  | 11/19/20 | 11/20/20      |
| BLANK       | OCDF                                   | Not detected | 50.0   | 6.9PC    | pg/L  | 11/19/20 | 11/20/20      |
| BLANK       | SURROGATE: 13C-1,2,3,4,6,7,8-HPCDD (S) | 83.0         | 26-166 |          | %     | 11/19/20 | 11/20/20      |
| BLANK       | SURROGATE: 13C-1,2,3,4,6,7,8-HPCDF (S) | 77.0         | 21-158 |          | %     | 11/19/20 | 11/20/20      |
| BLANK       | SURROGATE: 13C-1,2,3,4,7,8,9-HPCDF (S) | 74.2         | 20-186 |          | %     | 11/19/20 | 11/20/20      |
| BLANK       | SURROGATE: 13C-1,2,3,4,7,8-HXCDD (S)   | 82.5         | 21-193 |          | %     | 11/19/20 | 11/20/20      |
| BLANK       | SURROGATE: 13C-1,2,3,4,7,8-HXCDF (S)   | 82.0         | 19-202 |          | %     | 11/19/20 | 11/20/20      |
| BLANK       | SURROGATE: 13C-1,2,3,6,7,8-HXCDD (S)   | 81.3         | 25-163 |          | %     | 11/19/20 | 11/20/20      |
| BLANK       | SURROGATE: 13C-1,2,3,6,7,8-HXCDF (S)   | 77.5         | 21-159 |          | %     | 11/19/20 | 11/20/20      |
| BLANK       | SURROGATE: 13C-1,2,3,7,8,9-HXCDF (S)   | 73.9         | 17-205 |          | %     | 11/19/20 | 11/20/20      |
| BLANK       | SURROGATE: 13C-1,2,3,7,8-PECDD (S)     | 69.6         | 21-227 |          | %     | 11/19/20 | 11/20/20      |
| BLANK       | SURROGATE: 13C-1,2,3,7,8-PECDF (S)     | 72.7         | 21-192 |          | %     | 11/19/20 | 11/20/20      |
| BLANK       | SURROGATE: 13C-2,3,4,6,7,8-HXCDF (S)   | 75.3         | 22-176 |          | %     | 11/19/20 | 11/20/20      |
| BLANK       | SURROGATE: 13C-2,3,4,7,8-PECDF (S)     | 67.3         | 13-328 |          | %     | 11/19/20 | 11/20/20      |
| BLANK       | SURROGATE: 13C-2,3,7,8-TCDD (S)        | 69.2         | 20-175 |          | %     | 11/19/20 | 11/20/20      |
| BLANK       | SURROGATE: 13C-2,3,7,8-TCDF (S)        | 66.7         | 22-152 |          | %     | 11/19/20 | 11/20/20      |
| BLANK       | SURROGATE: 13C-OCDD (S)                | 77.2         | 13-199 |          | %     | 11/19/20 | 11/20/20      |

Quant Method: 201115\_1613  
Run #: 201120\_HR\_05  
Instrument: Magneto  
Sequence: 201120  
Initials: RP



## Laboratory Control Spike Recoveries

### EPA 1613B DIOXINS FURANS LOW LEV

APPL ID: 201119W-21547 LCS - 259001

Batch ID: #1613LL-201119A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

| Compound Name                        | Spike Lvl<br>pg/L | SPK Result<br>pg/L | DUP Result<br>pg/L | SPK %<br>Recovery | DUP %<br>Recovery | Recovery<br>Limits | RPD<br>% | RPD<br>Limits |
|--------------------------------------|-------------------|--------------------|--------------------|-------------------|-------------------|--------------------|----------|---------------|
| 1,2,3,4,6,7,8-HPCDD                  | 4000              | 4180               | 4180               | 105               | 105               | 70-140             | 0.0      | 30            |
| 1,2,3,4,6,7,8-HPCDF                  | 4000              | 4210               | 4150               | 105               | 104               | 82-122             | 1.4      | 30            |
| 1,2,3,4,7,8,9-HPCDF                  | 4000              | 4200               | 4040               | 105               | 101               | 78-138             | 3.9      | 30            |
| 1,2,3,4,7,8-HXCDD                    | 4000              | 4230               | 4060               | 106               | 102               | 70-164             | 4.1      | 30            |
| 1,2,3,4,7,8-HXCDF                    | 4000              | 4110               | 4140               | 103               | 104               | 72-134             | 0.73     | 30            |
| 1,2,3,6,7,8-HXCDD                    | 4000              | 4430               | 4410               | 111               | 110               | 76-134             | 0.45     | 30            |
| 1,2,3,6,7,8-HXCDF                    | 4000              | 4350               | 4230               | 109               | 106               | 84-130             | 2.8      | 30            |
| 1,2,3,7,8,9-HXCDD                    | 4000              | 4130               | 4080               | 103               | 102               | 64-162             | 1.2      | 30            |
| 1,2,3,7,8,9-HXCDF                    | 4000              | 4260               | 4130               | 107               | 103               | 78-130             | 3.1      | 30            |
| 1,2,3,7,8-PECDD                      | 4000              | 4320               | 4160               | 108               | 104               | 70-142             | 3.8      | 30            |
| 1,2,3,7,8-PECDF                      | 4000              | 4310               | 4140               | 108               | 104               | 80-134             | 4.0      | 30            |
| 2,3,4,6,7,8-HXCDF                    | 4000              | 4330               | 4330               | 108               | 108               | 70-156             | 0.0      | 30            |
| 2,3,4,7,8-PECDF                      | 4000              | 4240               | 4010               | 106               | 100               | 68-160             | 5.6      | 30            |
| 2,3,7,8-TCDD                         | 800               | 811                | 786                | 101               | 98.3              | 67-158             | 3.1      | 30            |
| 2,3,7,8-TCDF                         | 800               | 787                | 739                | 98.4              | 92.4              | 75-158             | 6.3      | 30            |
| OCDD                                 | 8000              | 8950               | 8590               | 112               | 107               | 78-144             | 4.1      | 30            |
| OCDF                                 | 8000              | 7730               | 7720               | 96.6              | 96.5              | 63-170             | 0.13     | 30            |
| <hr/>                                |                   |                    |                    |                   |                   |                    |          |               |
| SURROGATE: 13C-1,2,3,4,6,7,8-HPCDD   | 2000              | 1740               | 1490               | 87.0              | 74.5              | 26-166             |          |               |
| SURROGATE: 13C-1,2,3,4,6,7,8-HPCDF ( | 2000              | 1600               | 1380               | 80.0              | 69.0              | 21-158             |          |               |
| SURROGATE: 13C-1,2,3,4,7,8,9-HPCDF ( | 2000              | 1640               | 1380               | 82.0              | 69.0              | 20-186             |          |               |
| SURROGATE: 13C-1,2,3,4,7,8-HXCDD (S  | 2000              | 1710               | 1480               | 85.5              | 74.0              | 21-193             |          |               |
| SURROGATE: 13C-1,2,3,4,7,8-HXCDF (S  | 2000              | 1680               | 1430               | 84.0              | 71.5              | 19-202             |          |               |
| SURROGATE: 13C-1,2,3,6,7,8-HXCDD (S  | 2000              | 1590               | 1370               | 79.5              | 68.5              | 25-163             |          |               |
| SURROGATE: 13C-1,2,3,6,7,8-HXCDF (S  | 2000              | 1500               | 1320               | 75.0              | 66.0              | 21-159             |          |               |

Comments: \_\_\_\_\_

| <u>Primary</u>    | <u>SPK</u>   | <u>DUP</u>   |
|-------------------|--------------|--------------|
| Quant Method :    | 201115_1613  | 201115_1613  |
| Extraction Date : | 11/19/20     | 11/19/20     |
| Analysis Date :   | 11/20/20     | 11/20/20     |
| Instrument :      | Magneto      | Magneto      |
| Run :             | 201120_HR_03 | 201120_HR_04 |
| Initials :        | RP           |              |

# Laboratory Control Spike Recoveries

## EPA 1613B DIOXINS FURANS LOW LEV

APPL ID: 201119W-21547 LCS - 259001

Batch ID: #1613LL-201119A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

| Compound Name                        | Spike Lvl<br>pg/L | SPK Result<br>pg/L | DUP Result<br>pg/L | SPK %<br>Recovery | DUP %<br>Recovery | Recovery<br>Limits | RPD<br>% | RPD<br>Limits |
|--------------------------------------|-------------------|--------------------|--------------------|-------------------|-------------------|--------------------|----------|---------------|
| SURROGATE: 13C-1,2,3,7,8,9-HXCDF (S) | 2000              | 1550               | 1370               | 77.5              | 68.5              | 17-205             |          |               |
| SURROGATE: 13C-1,2,3,7,8-PECDD (S)   | 2000              | 1380               | 1160               | 69.0              | 58.0              | 21-227             |          |               |
| SURROGATE: 13C-1,2,3,7,8-PECDF (S)   | 2000              | 1410               | 1220               | 70.5              | 61.0              | 21-192             |          |               |
| SURROGATE: 13C-2,3,4,6,7,8-HXCDF (S) | 2000              | 1610               | 1340               | 80.5              | 67.0              | 22-176             |          |               |
| SURROGATE: 13C-2,3,4,7,8-PECDF (S)   | 2000              | 1350               | 1160               | 67.5              | 58.0              | 13-328             |          |               |
| SURROGATE: 13C-2,3,7,8-TCDD (S)      | 2000              | 1350               | 1160               | 67.5              | 58.0              | 20-175             |          |               |
| SURROGATE: 13C-2,3,7,8-TCDF (S)      | 2000              | 1390               | 1240               | 69.5              | 62.0              | 22-152             |          |               |
| SURROGATE: 13C-OCDD (S)              | 4000              | 3170               | 2790               | 79.3              | 69.8              | 13-199             |          |               |

Comments:

| <u>Primary</u>    | <u>SPK</u>   | <u>DUP</u>   |
|-------------------|--------------|--------------|
| Quant Method :    | 201115_1613  | 201115_1613  |
| Extraction Date : | 11/19/20     | 11/19/20     |
| Analysis Date :   | 11/20/20     | 11/20/20     |
| Instrument :      | Magneto      | Magneto      |
| Run :             | 201120_HR_03 | 201120_HR_04 |
| Initials :        | RP           |              |



# CHAIN OF CUSTODY RECORD

Omega COCID 181

ADDRESS  
Neilson Research Corporation  
245 S Grape St  
Medford, OR 97501  
TEL: (541) 770-5678  
FAX: (541) 770-2901  
Website: www.nrclabs.com



R4 4002 51050 94050

SUB CONTRACTOR: Appl Inc COMPANY: Agriculture & Priority Pollutant  
ADDRESS: 908 N Temperance Ave  
CITY, STATE, ZIP: Clovis, CA 93611  
PHONE: (559) 275-2175 FAX: EMAIL:  
ACCOUNT #: PO #: 1278

SPECIAL INSTRUCTIONS / COMMENTS:

| ANALYTICAL PARAMETERS      |
|----------------------------|
| SUB-MISC (SUB-MISC)        |
| SUB-DIOXINS/FURANS (E1613) |

PFOS & PFAS

| ITEM # | SAMPLE ID    | Client Sample ID   | Bottle Type | MATRIX | DATE COLLECTED        | NUMBER OF CONTAINERS |
|--------|--------------|--------------------|-------------|--------|-----------------------|----------------------|
| 1      | 20110157-01G | Bear Creek Greenwa | AMB 1L      | W      | 11/4/2020 11:35:00 AM | 2                    |
| 2      | 20110157-01K | Bear Creek Greenwa | HDPE 250ML  | W      | 11/4/2020 11:35:00 AM | 2                    |

|                                           |                                   |                               |                                  |                                 |                                 |
|-------------------------------------------|-----------------------------------|-------------------------------|----------------------------------|---------------------------------|---------------------------------|
| Relinquished By:                          | Date: 11/10/2020                  | Time: 9:20 AM                 | Received By:                     | Date:                           | Time:                           |
| Relinquished By:                          | Date:                             | Time:                         | Received By:                     | Date:                           | Time:                           |
| Relinquished By:                          | Date:                             | Time:                         | Received By:                     | Date: 11/10/2020                | Time: 9:50                      |
| TAT:                                      | Standard <input type="checkbox"/> | RUSH <input type="checkbox"/> | Next BD <input type="checkbox"/> | 2nd BD <input type="checkbox"/> | 3rd BD <input type="checkbox"/> |
| Note: RUSH requests will incur surcharge! |                                   |                               |                                  |                                 |                                 |
| 13 of 13                                  |                                   |                               |                                  |                                 |                                 |

REPORT TRANSMITTAL DESIRED:  
☐ HARD COPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE

FOR LAB USE ONLY  
Temp of samples \_\_\_\_\_ °C Attempt to Cool? \_\_\_\_\_  
Comments: \_\_\_\_\_



1435 Norjohn Court, Unit 1, Burlington, ON, Canada L7L 0E6  
Phone: 905-331-3111, FAX: 905-331-4567

## Certificate of Analysis

**ALS Project Contact:** Breanne Dusureault  
**ALS Project ID:** NRC300  
**ALS WO#:** L2529060  
**Date of Report:** 6-Jan-21  
**Date of Sample Receipt:** 12-Nov-20

**Client Name:** Neilson Research Corporation  
**Client Address:** 245 South Grape St.  
Medford, OR 97501  
USA  
**Client Contact:** Tamra Schmedemann  
**Client Project ID:** PO# 1280

**COMMENTS:** Brominated Flame Retardants by EPA 1614

Certified by: \_\_\_\_\_

Steve Kennedy  
Technical Supervisor

Results in this certificate relate only to the samples as submitted to the laboratory.

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| ALS Life Sciences              |                                                  |
|--------------------------------|--------------------------------------------------|
| Sample Analysis Summary Report |                                                  |
| Sample Name                    | 20110157-01L<br>BEAR CREEK<br>GREENWAY<br>BRIDGE |
| ALS Sample ID                  | L2529060-1                                       |
| Sample Size                    | 1.05                                             |
| Sample size units              | L                                                |
| Percent Moisture               | n/a                                              |
| Sample Matrix                  | Water                                            |
| Sampling Date                  | 4-Nov-20                                         |
| Extraction Date                | 3-Dec-20                                         |
| <b>Target Analytes</b>         | <b>pg/L</b>                                      |
| BDE 10                         | <0.13                                            |
| BDE 7                          | <0.14                                            |
| BDE 8/11                       | <0.10                                            |
| BDE 12/13                      | 0.276                                            |
| BDE 15                         | 1.02                                             |
| BDE 30                         | <0.26                                            |
| BDE 32                         | <0.20                                            |
| BDE 17/25                      | 1.56                                             |
| BDE 28/33                      | 1.51                                             |
| BDE 35                         | <0.25                                            |
| BDE 37                         | <0.19                                            |
| PBEB                           | <0.12                                            |
| PBB 52                         | <0.096                                           |
| HBB                            | 1.50                                             |
| BDE 75                         | <0.11                                            |
| BDE 51                         | <0.097                                           |
| BDE 49                         | 1.31                                             |
| BDE 71                         | <0.15                                            |
| BDE 47                         | 26.0                                             |
| BDE 79                         | 0.381                                            |
| BDE 66                         | 1.18                                             |
| BDE 77                         | <0.094                                           |
| PBB 101                        | <0.11                                            |
| BDE 100                        | 6.41                                             |
| BDE 119/120                    | <0.23                                            |
| BDE 99                         | 26.4                                             |
| BDE 116                        | <0.36                                            |
| BDE 83                         | <0.32                                            |
| BDE 118                        | <0.28                                            |
| BDE 85                         | 1.04                                             |
| BDE 126                        | <0.14                                            |
| BDE 105                        | <0.29                                            |
| PBB 153                        | <0.14                                            |
| BDE 155                        | <0.17                                            |
| BDE 154                        | 3.62                                             |
| BDE 153                        | 3.82                                             |
| BDE 140                        | <0.34                                            |
| BDE 138/166                    | <0.66                                            |
| BDE 156                        | <0.93                                            |
| BDE 128                        | <0.84                                            |
| BDE 184                        | <0.19                                            |
| BDE 183                        | <0.80                                            |
| BDE 191                        | <0.47                                            |
| BDE 181                        | <0.46                                            |
| BDE 190                        | <0.69                                            |
| PBB 180                        | <0.74                                            |
| BDE 197                        | <0.49                                            |
| BDE 203                        | <0.68                                            |
| BDE 196                        | <0.57                                            |
| PBB 194                        | <0.55                                            |
| BDE 208                        | <1.0                                             |
| BDE 207                        | 2.77                                             |
| BDE 206                        | 3.96                                             |
| PBB 206                        | <1.4                                             |
| PBB 209                        | <1.1                                             |
| BDE 209                        | 55.8                                             |
| <b>Extraction Standards</b>    | <b>% Rec</b>                                     |
| 13C12 BDE 15                   | 36                                               |
| 13C12 BDE 28                   | 55                                               |
| 13C6 HBB                       | 64                                               |
| 13C12 BDE 47                   | 65                                               |
| 13C12 BDE 77                   | 79                                               |
| 13C12 BDE 100                  | 66                                               |
| 13C12 BDE 99                   | 79                                               |
| 13C12 BDE 126                  | 81                                               |
| 13C12 BDE 154                  | 92                                               |
| 13C12 BDE 153                  | 75                                               |
| 13C12 BDE 183                  | 73                                               |
| 13C12 BDE 197                  | 80                                               |
| 13C12 BDE 207                  | 68                                               |
| 13C12 BDE 209                  | 81                                               |
| <b>Cleanup Standard</b>        |                                                  |
| 13C12 BDE 138 Cleanup          | 90                                               |

| ALS Life Sciences              |              |                           |
|--------------------------------|--------------|---------------------------|
| Quality Control Summary Report |              |                           |
| Sample Name                    | Method Blank | Laboratory Control Sample |
| ALS Sample ID                  | WG3444454-1  | WG3444454-2               |
| Sample Size                    | 1.00         | 1                         |
| Sample size units              | L            | n/a                       |
| Percent Moisture               | n/a          | n/a                       |
| Sample Matrix                  | QC           | QC                        |
| Sampling Date                  | n/a          | n/a                       |
| Extraction Date                | 3-Dec-20     | 3-Dec-20                  |
| Target Analytes                | pg/L         | % Rec                     |
| BDE 10                         | <0.064       | 24                        |
| BDE 7                          | <0.067       | 43                        |
| BDE 8/11                       | <0.11        | 80                        |
| BDE 12/13                      | <0.041       | 69                        |
| BDE 15                         | 0.280        | 91                        |
| BDE 30                         | <0.27        | 49                        |
| BDE 32                         | <0.21        | 91                        |
| BDE 17/25                      | 0.430        | 103                       |
| BDE 28/33                      | 1.05         | 93                        |
| BDE 35                         | <0.19        | 113                       |
| BDE 37                         | <0.19        | 99                        |
| PBEB                           | 0.720        | 108                       |
| PBB 52                         | <0.13        | 130                       |
| HBB                            | 4.69         | 91                        |
| BDE 75                         | <0.097       | 82                        |
| BDE 51                         | <0.14        | 88                        |
| BDE 49                         | 1.16         | 86                        |
| BDE 71                         | <0.13        | 86                        |
| BDE 47                         | 29.6         | 100                       |
| BDE 79                         | <0.082       | 97                        |
| BDE 66                         | <0.41        | 93                        |
| BDE 77                         | <0.092       | 93                        |
| PBB 101                        | <0.18        | 96                        |
| BDE 100                        | 5.89         | 94                        |
| BDE 119/120                    | <0.19        | 99                        |
| BDE 99                         | 31.0         | 97                        |
| BDE 116                        | <0.31        | 67                        |
| BDE 83                         | <0.28        | 88                        |
| BDE 118                        | <0.24        | 93                        |
| BDE 85                         | 1.22         | 100                       |
| BDE 126                        | <0.13        | 94                        |
| BDE 105                        | <0.25        | 94                        |
| PBB 153                        | <0.27        | 102                       |
| BDE 155                        | <0.19        | 91                        |
| BDE 154                        | 2.22         | 95                        |
| BDE 153                        | <0.64        | 93                        |
| BDE 140                        | <0.48        | 89                        |
| BDE 138/166                    | <0.94        | 112                       |
| BDE 156                        | <1.3         | 108                       |
| BDE 128                        | <1.2         | 112                       |
| BDE 184                        | <0.34        | 108                       |
| BDE 183                        | 1.28         | 96                        |
| BDE 191                        | <0.82        | 112                       |
| BDE 181                        | <0.81        | 104                       |
| BDE 190                        | <1.2         | 124                       |
| PBB 180                        | <0.73        | 98                        |
| BDE 197                        | <0.88        | 93                        |
| BDE 203                        | <0.83        | 111                       |
| BDE 196                        | <0.70        | 94                        |
| PBB 194                        | <0.73        | 98                        |
| BDE 208                        | <0.78        | 93                        |
| BDE 207                        | 4.59         | 94                        |
| BDE 206                        | <4.2         | 122                       |
| PBB 206                        | <1.6         | 79                        |
| PBB 209                        | <1.0         | 98                        |
| BDE 209                        | 66.5         | 101                       |
| Extraction Standards           | % Rec        | % Rec                     |
| 13C12 BDE 15                   | 67           | 60                        |
| 13C12 BDE 28                   | 86           | 74                        |
| 13C6 HBB                       | 78           | 69                        |
| 13C12 BDE 47                   | 80           | 74                        |
| 13C12 BDE 77                   | 86           | 82                        |
| 13C12 BDE 100                  | 76           | 69                        |
| 13C12 BDE 99                   | 80           | 75                        |
| 13C12 BDE 126                  | 79           | 82                        |
| 13C12 BDE 154                  | 79           | 76                        |
| 13C12 BDE 153                  | 74           | 74                        |
| 13C12 BDE 183                  | 74           | 68                        |
| 13C12 BDE 197                  | 74           | 79                        |
| 13C12 BDE 207                  | 64           | 64                        |
| 13C12 BDE 209                  | 74           | 87                        |
| Cleanup Standard               |              |                           |
| 13C12 BDE 138 Cleanup          | 77           | 83                        |

# ALS Life Sciences

## Sample Analysis Report

|                    |                                                |                      |          |                                                                                   |
|--------------------|------------------------------------------------|----------------------|----------|-----------------------------------------------------------------------------------|
| <b>Sample Name</b> | <b>20110157-01L BEAR CREEK GREENWAY BRIDGE</b> | <b>Sampling Date</b> | 4-Nov-20 | <div>Approved:<br/><i>Ella Gdyczynski</i><br/>--signature--<br/>05-Jan-2021</div> |
| ALS Sample ID      | L2529060-1                                     | Extraction Date      | 3-Dec-20 |                                                                                   |
| Analysis Method    | EPA 1614                                       | Sample Size          | 1.05 L   |                                                                                   |
| Analysis Type      | Sample                                         | Percent Moisture     | n/a      |                                                                                   |
| Sample Matrix      | Water                                          | Split Ratio          | 1        |                                                                                   |

|                        |                       |
|------------------------|-----------------------|
| <b>Run Information</b> | <b>Run 1</b>          |
| Filename               | 9-201231A09           |
| Run Date               | 31-Dec-20 20:20       |
| Final Volume           | 25 uL                 |
| Dilution Factor        | 1                     |
| Analysis Units         | pg/L                  |
| Instrument - Column    | HRMS-9 DB5 US0210114H |

| Target Analytes | Ret.<br>Time | Conc.<br>pg/L | EDL<br>pg/L | Flags | EMPC<br>pg/L | LQL |
|-----------------|--------------|---------------|-------------|-------|--------------|-----|
| BDE 10          | NotFnd       | <0.13         | 0.13        | U     |              | 24  |
| BDE 7           | NotFnd       | <0.14         | 0.14        | U     |              | 24  |
| BDE 8/11        | NotFnd       | <0.10         | 0.10        | U     |              | 48  |
| BDE 12/13       | 7.14         | 0.276         | 0.086       | J     |              | 48  |
| BDE 15          | 7.27         | 1.02          | 0.075       | J,B   |              | 24  |
| BDE 30          | NotFnd       | <0.26         | 0.26        | U     |              | 24  |
| BDE 32          | NotFnd       | <0.20         | 0.20        | U     |              | 24  |
| BDE 17/25       | 8.63         | 1.56          | 0.27        | M,J,B |              | 48  |
| BDE 28/33       | 8.87         | 1.51          | 0.27        | M,J,B |              | 48  |
| BDE 35          | 9.00         | <0.25         | 0.19        | M,J,R | 0.25         | 24  |
| BDE 37          | NotFnd       | <0.19         | 0.19        | U     |              | 24  |
| PBEB            | 9.25         | <0.12         | 0.078       | M,J,R | 0.12         | 24  |
| PBB 52          | NotFnd       | <0.096        | 0.096       | U     |              | 24  |
| HBB             | 10.26        | 1.50          | 0.098       | M,J,B |              | 24  |
| BDE 75          | NotFnd       | <0.11         | 0.11        | U     |              | 24  |
| BDE 51          | NotFnd       | <0.097        | 0.097       | U     |              | 24  |
| BDE 49          | 10.49        | 1.31          | 0.15        | M,J,B |              | 24  |
| BDE 71          | NotFnd       | <0.15         | 0.15        | U     |              | 24  |
| BDE 47          | 10.82        | 26.0          | 0.11        | M,B   |              | 24  |
| BDE 79          | 10.95        | 0.381         | 0.093       | M,J   |              | 24  |
| BDE 66          | 11.12        | 1.18          | 0.17        | J     |              | 24  |
| BDE 77          | NotFnd       | <0.094        | 0.094       | U     |              | 24  |
| PBB 101         | NotFnd       | <0.11         | 0.11        | U     |              | 48  |
| BDE 100         | 12.50        | 6.41          | 0.11        | J,B   |              | 36  |
| BDE 119/120     | NotFnd       | <0.23         | 0.23        | U     |              | 36  |
| BDE 99          | 13.01        | 26.4          | 0.16        | J,B   |              | 36  |
| BDE 116         | NotFnd       | <0.36         | 0.36        | U     |              | 36  |
| BDE 83          | NotFnd       | <0.32         | 0.32        | U     |              | 36  |
| BDE 118         | NotFnd       | <0.28         | 0.28        | U     |              | 36  |
| BDE 85          | 13.92        | 1.04          | 0.24        | J,B   |              | 36  |
| BDE 126         | NotFnd       | <0.14         | 0.14        | U     |              | 36  |
| BDE 105         | NotFnd       | <0.29         | 0.29        | U     |              | 36  |
| PBB 153         | NotFnd       | <0.14         | 0.14        | U     |              | 48  |
| BDE 155         | 14.09        | <0.17         | 0.15        | M,J,R | 0.17         | 48  |
| BDE 154         | 14.46        | 3.62          | 0.18        | J,B   |              | 48  |
| BDE 153         | 15.20        | 3.82          | 0.49        | J     |              | 48  |
| BDE 140         | NotFnd       | <0.34         | 0.34        | U     |              | 48  |
| BDE 138/166     | NotFnd       | <0.66         | 0.66        | U     |              | 95  |
| BDE 156         | NotFnd       | <0.93         | 0.93        | U     |              | 48  |
| BDE 128         | NotFnd       | <0.84         | 0.84        | U     |              | 48  |
| BDE 184         | NotFnd       | <0.19         | 0.19        | U     |              | 60  |
| BDE 183         | 17.35        | <0.80         | 0.28        | M,J,R | 0.80         | 60  |
| BDE 191         | NotFnd       | <0.47         | 0.47        | U     |              | 60  |
| BDE 181         | NotFnd       | <0.46         | 0.46        | U     |              | 60  |
| BDE 190         | NotFnd       | <0.69         | 0.69        | U     |              | 60  |
| PBB 180         | NotFnd       | <0.74         | 0.74        | U     |              | 48  |
| BDE 197         | NotFnd       | <0.49         | 0.49        | U     |              | 60  |
| BDE 203         | NotFnd       | <0.68         | 0.68        | U     |              | 60  |
| BDE 196         | NotFnd       | <0.57         | 0.57        | U     |              | 60  |
| PBB 194         | NotFnd       | <0.55         | 0.55        | U     |              | 48  |
| BDE 208         | 21.38        | <1.0          | 0.27        | M,J,R | 1.0          | 120 |
| BDE 207         | 21.52        | 2.77          | 0.25        | M,J,B |              | 120 |
| BDE 206         | 21.80        | 3.96          | 0.34        | J     |              | 120 |
| PBB 206         | NotFnd       | <1.4          | 1.4         | U     |              | 120 |
| PBB 209         | NotFnd       | <1.1          | 1.1         | U     |              | 120 |
| BDE 209         | 23.64        | 55.8          | 0.91        | J,B   |              | 120 |

| Extraction Standards | pg   | % Rec | Limits    |
|----------------------|------|-------|-----------|
| 13C12 BDE 15         | 1000 | 7.27  | 36 25-150 |
| 13C12 BDE 28         | 1000 | 8.86  | 55 25-150 |
| 13C6 HBB             | 1000 | 10.26 | 64 25-150 |
| 13C12 BDE 47         | 1000 | 10.82 | 65 25-150 |
| 13C12 BDE 77         | 1000 | 11.59 | 79 25-150 |
| 13C12 BDE 100        | 1000 | 12.49 | 66 25-150 |
| 13C12 BDE 99         | 1000 | 13.00 | 79 25-150 |
| 13C12 BDE 126        | 1000 | 14.08 | 81 25-150 |
| 13C12 BDE 154        | 1000 | 14.45 | 92 25-150 |
| 13C12 BDE 153        | 1000 | 15.19 | 75 25-150 |
| 13C12 BDE 183        | 1000 | 17.34 | 73 25-150 |
| 13C12 BDE 197        | 2000 | 19.76 | 80 25-150 |
| 13C12 BDE 207        | 5000 | 21.52 | 68 25-150 |
| 13C12 BDE 209        | 5000 | 23.64 | 81 20-200 |

| Cleanup Standard      | pg   | % Rec | Limits    |
|-----------------------|------|-------|-----------|
| 13C12 BDE 138 Cleanup | 2000 | 16.16 | 90 30-135 |

|      |                                                                                                                          |
|------|--------------------------------------------------------------------------------------------------------------------------|
| EDL  | Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.          |
| LQL  | Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.       |
| M    | Indicates that a peak has been manually integrated.                                                                      |
| U    | Indicates that this compound was not detected above the EDL.                                                             |
| J    | Indicates that a target analyte was detected below the calibrated range.                                                 |
| R    | Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.                          |
| B    | Indicates that this target was detected in the blank at greater than 10% of the sample concentration.                    |
| EMPC | Estimated Maximum Possible Concentration - elevated detection limit due to interference or positive id criterion failure |

ALS Life Sciences

Laboratory Method Blank Analysis Report

Sample Name

ALS Sample ID

Analysis Method

Analysis Type

Sample Matrix

Method Blank

WG3444454-1

EPA 1614

Blank

QC

Sampling Date

Extraction Date

Sample Size

Percent Moisture

Split Ratio

n/a

3-Dec-20

1.00

n/a

1

Approved:

Ella Gdyczynski

Signature

05-Jan-2021

Run Information

Run 1

Filename

Run Date

Final Volume

Dilution Factor

Analysis Units

Instrument - Column

9-201231A07A

31-Dec-20 19:07

25 uL

1

pg/L

HRMS-9 DB5 US0210114H

| Target Analytes | Ret. Time | Conc. pg/L | EDL pg/L | Flags | EMPC pg/L | LQL |
|-----------------|-----------|------------|----------|-------|-----------|-----|
| BDE 10          | NotFnd    | <0.064     | 0.064    | U     |           | 25  |
| BDE 7           | NotFnd    | <0.067     | 0.067    | U     |           | 25  |
| BDE 8/11        | 7.03      | <0.11      | 0.049    | M,J,R | 0.11      | 50  |
| BDE 12/13       | NotFnd    | <0.041     | 0.041    | U     |           | 50  |
| BDE 15          | 7.29      | 0.280      | 0.036    | J     |           | 25  |
| BDE 30          | NotFnd    | <0.27      | 0.27     | U     |           | 25  |
| BDE 32          | NotFnd    | <0.21      | 0.21     | U     |           | 25  |
| BDE 17/25       | 8.63      | 0.430      | 0.28     | M,J   |           | 50  |
| BDE 28/33       | 8.87      | 1.05       | 0.28     | J     |           | 50  |
| BDE 35          | NotFnd    | <0.19      | 0.19     | U     |           | 25  |
| BDE 37          | NotFnd    | <0.19      | 0.19     | U     |           | 25  |
| PBEB            | 9.25      | 0.720      | 0.086    | M,J   |           | 25  |
| PBB 52          | NotFnd    | <0.13      | 0.13     | U     |           | 25  |
| HBB             | 10.26     | 4.69       | 0.10     | J     |           | 25  |
| BDE 75          | NotFnd    | <0.097     | 0.097    | U     |           | 25  |
| BDE 51          | 10.37     | <0.14      | 0.085    | M,J,R | 0.14      | 25  |
| BDE 49          | 10.47     | 1.16       | 0.13     | M,J   |           | 25  |
| BDE 71          | NotFnd    | <0.13      | 0.13     | U     |           | 25  |
| BDE 47          | 10.82     | 29.6       | 0.090    | M     |           | 25  |
| BDE 79          | NotFnd    | <0.082     | 0.082    | U     |           | 25  |
| BDE 66          | 11.11     | <0.41      | 0.15     | M,J,R | 0.41      | 25  |
| BDE 77          | NotFnd    | <0.092     | 0.092    | U     |           | 25  |
| PBB 101         | NotFnd    | <0.18      | 0.18     | U     |           | 50  |
| BDE 100         | 12.49     | 5.89       | 0.090    | M,J   |           | 38  |
| BDE 119/120     | NotFnd    | <0.19      | 0.19     | U     |           | 38  |
| BDE 99          | 13.00     | 31.0       | 0.14     | M,J   |           | 38  |
| BDE 116         | NotFnd    | <0.31      | 0.31     | U     |           | 38  |
| BDE 83          | NotFnd    | <0.28      | 0.28     | U     |           | 38  |
| BDE 118         | NotFnd    | <0.24      | 0.24     | U     |           | 38  |
| BDE 85          | 13.90     | 1.22       | 0.21     | J     |           | 38  |
| BDE 126         | NotFnd    | <0.13      | 0.13     | U     |           | 38  |
| BDE 105         | NotFnd    | <0.25      | 0.25     | U     |           | 38  |
| PBB 153         | NotFnd    | <0.27      | 0.27     | U     |           | 50  |
| BDE 155         | NotFnd    | <0.19      | 0.19     | U     |           | 50  |
| BDE 154         | 14.45     | 2.22       | 0.23     | J     |           | 50  |
| BDE 153         | NotFnd    | <0.64      | 0.64     | U     |           | 50  |
| BDE 140         | NotFnd    | <0.48      | 0.48     | U     |           | 50  |
| BDE 138/166     | NotFnd    | <0.94      | 0.94     | U     |           | 100 |
| BDE 156         | NotFnd    | <1.3       | 1.3      | U     |           | 50  |
| BDE 128         | NotFnd    | <1.2       | 1.2      | U     |           | 50  |
| BDE 184         | NotFnd    | <0.34      | 0.34     | U     |           | 63  |
| BDE 183         | 17.33     | 1.28       | 0.49     | M,J   |           | 63  |
| BDE 191         | NotFnd    | <0.82      | 0.82     | U     |           | 63  |
| BDE 181         | NotFnd    | <0.81      | 0.81     | U     |           | 63  |
| BDE 190         | NotFnd    | <1.2       | 1.2      | U     |           | 63  |
| PBB 180         | NotFnd    | <0.73      | 0.73     | U     |           | 50  |
| BDE 197         | 19.76     | <0.88      | 0.60     | M,J,R | 0.88      | 63  |
| BDE 203         | NotFnd    | <0.83      | 0.83     | U     |           | 63  |
| BDE 196         | NotFnd    | <0.70      | 0.70     | U     |           | 63  |
| PBB 194         | NotFnd    | <0.73      | 0.73     | U     |           | 50  |
| BDE 208         | 21.38     | <0.78      | 0.53     | M,J,R | 0.78      | 130 |
| BDE 207         | 21.51     | 4.59       | 0.49     | M,J   |           | 130 |
| BDE 206         | 21.80     | <4.2       | 0.67     | M,J,R | 4.2       | 130 |
| PBB 206         | NotFnd    | <1.6       | 1.6      | U     |           | 130 |
| PBB 209         | NotFnd    | <1.0       | 1.0      | U     |           | 130 |
| BDE 209         | 23.64     | 66.5       | 1.6      | J     |           | 130 |

Extraction Standards

pg

% Rec

Limits

13C12 BDE 15

13C12 BDE 28

13C6 HBB

13C12 BDE 47

13C12 BDE 77

13C12 BDE 100

13C12 BDE 99

13C12 BDE 126

13C12 BDE 154

13C12 BDE 153

13C12 BDE 183

13C12 BDE 197

13C12 BDE 207

13C12 BDE 209

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

2000

5000

5000

7.28

8.86

10.26

10.81

11.58

12.49

13.00

14.06

14.45

15.18

17.33

19.75

21.51

23.63

67

86

78

80

86

76

80

79

79

74

74

74

64

74

25-150

25-150

25-150

25-150

25-150

25-150

25-150

25-150

25-150

25-150

25-150

25-150

25-150

20-200

Cleanup Standard

pg

% Rec

Limits

13C12 BDE 138 Cleanup

2000

16.15

77

30-135

EDL

LQL

M

U

J

R

EMPC

Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.

Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.

Indicates that a peak has been manually integrated.

Indicates that this compound was not detected above the EDL.

Indicates that a target analyte was detected below the calibrated range.

Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

Estimated Maximum Possible Concentration - elevated detection limit due to interference or positive id criterion failure

ALS Canada Ltd.

L2529060 PBDE 210106

5 of 6

Page 54 of 57



ALS Life Sciences

Laboratory Control Sample Analysis Report

Sample Name

Laboratory Control Sample

ALS Sample ID

WG3444454-2

Analysis Method

EPA 1614

Analysis Type

LCS

Sample Matrix

QC

Sampling Date

n/a

Extraction Date

3-Dec-20

Sample Size

1

Percent Moisture

n/a

Split Ratio

1

Approved:

Ella Gdyczynski

--signature--

05-Jan-2021

Run Information

Run 1

Filename

9-201231A01

Run Date

31-Dec-20 14:56

Final Volume

25 uL

Dilution Factor

1

Analysis Units

%

Instrument - Column

HRMS-9 DB5 US0210114H

| Target Analytes | pg   | Ret.  |       | Limits | Flags |
|-----------------|------|-------|-------|--------|-------|
|                 |      | Time  | % Rec |        |       |
| BDE 10          | 400  | 6.49  | 24    | 5-130  |       |
| BDE 7           | 400  | 6.86  | 43    | 5-130  |       |
| BDE 8/11        | 800  | 7.01  | 80    | 50-150 |       |
| BDE 12/13       | 800  | 7.14  | 69    | 5-130  |       |
| BDE 15          | 400  | 7.28  | 91    | 50-150 |       |
| BDE 30          | 400  | 7.98  | 49    | 5-130  |       |
| BDE 32          | 400  | 8.46  | 91    | 50-150 |       |
| BDE 17/25       | 800  | 8.63  | 103   | 50-150 |       |
| BDE 28/33       | 800  | 8.87  | 93    | 50-150 |       |
| BDE 35          | 400  | 9.03  | 113   | 50-150 |       |
| BDE 37          | 400  | 9.23  | 99    | 50-150 |       |
| PBEB            | 400  | 9.24  | 108   | 50-150 |       |
| PBB 52          | 400  | 9.34  | 130   | 50-150 |       |
| HBB             | 400  | 10.26 | 91    | 50-150 |       |
| BDE 75          | 400  | 10.31 | 82    | 50-150 |       |
| BDE 51          | 400  | 10.37 | 88    | 50-150 |       |
| BDE 49          | 400  | 10.47 | 86    | 50-150 |       |
| BDE 71          | 400  | 10.55 | 86    | 50-150 |       |
| BDE 47          | 400  | 10.82 | 100   | 50-150 |       |
| BDE 79          | 400  | 10.98 | 97    | 50-150 |       |
| BDE 66          | 400  | 11.11 | 93    | 50-150 |       |
| BDE 77          | 400  | 11.59 | 93    | 50-150 |       |
| PBB 101         | 800  | 11.74 | 96    | 50-150 |       |
| BDE 100         | 600  | 12.50 | 94    | 50-150 |       |
| BDE 119/120     | 1200 | 12.66 | 99    | 50-150 |       |
| BDE 99          | 600  | 13.00 | 97    | 50-150 |       |
| BDE 116         | 600  | 13.17 | 67    | 40-140 |       |
| BDE 83          | 600  | 13.29 | 88    | 50-150 |       |
| BDE 118         | 600  | 13.42 | 93    | 50-150 |       |
| BDE 85          | 600  | 13.92 | 100   | 50-150 |       |
| BDE 126         | 600  | 14.08 | 94    | 50-150 |       |
| BDE 105         | 600  | 14.24 | 94    | 50-150 |       |
| PBB 153         | 800  | 14.41 | 102   | 50-150 |       |
| BDE 155         | 800  | 14.08 | 91    | 50-150 |       |
| BDE 154         | 800  | 14.46 | 95    | 50-150 |       |
| BDE 153         | 800  | 15.19 | 93    | 50-150 |       |
| BDE 140         | 800  | 15.66 | 89    | 50-150 |       |
| BDE 138/166     | 1600 | 16.16 | 112   | 50-150 | M     |
| BDE 156         | 800  | 16.54 | 108   | 50-150 |       |
| BDE 128         | 800  | 17.17 | 112   | 50-150 |       |
| BDE 184         | 1000 | 16.98 | 108   | 50-150 |       |
| BDE 183         | 1000 | 17.34 | 96    | 50-150 |       |
| BDE 191         | 1000 | 17.90 | 112   | 50-150 |       |
| BDE 181         | 1000 | 18.45 | 104   | 50-150 |       |
| BDE 190         | 1000 | 18.62 | 124   | 50-150 |       |
| PBB 180         | 800  | 17.45 | 98    | 50-150 |       |
| BDE 197         | 1000 | 19.76 | 93    | 50-150 |       |
| BDE 203         | 1000 | 20.00 | 111   | 50-150 |       |
| BDE 196         | 1000 | 20.13 | 94    | 50-150 |       |
| PBB 194         | 800  | 20.19 | 98    | 50-150 |       |
| BDE 208         | 2000 | 21.39 | 93    | 50-150 |       |
| BDE 207         | 2000 | 21.52 | 94    | 50-150 |       |
| BDE 206         | 2000 | 21.80 | 122   | 50-150 |       |
| PBB 206         | 2000 | 21.23 | 79    | 40-200 |       |
| PBB 209         | 2000 | 22.21 | 98    | 40-200 |       |
| BDE 209         | 2000 | 23.64 | 101   | 40-200 |       |

| Extraction Standards | pg   | % Rec | Limits    |
|----------------------|------|-------|-----------|
| 13C12 BDE 15         | 1000 | 7.27  | 60 25-150 |
| 13C12 BDE 28         | 1000 | 8.86  | 74 30-140 |
| 13C6 HBB             | 1000 | 10.26 | 69 30-140 |
| 13C12 BDE 47         | 1000 | 10.81 | 74 30-140 |
| 13C12 BDE 77         | 1000 | 11.59 | 82 30-140 |
| 13C12 BDE 100        | 1000 | 12.49 | 69 30-140 |
| 13C12 BDE 99         | 1000 | 13.00 | 75 30-140 |
| 13C12 BDE 126        | 1000 | 14.06 | 82 30-140 |
| 13C12 BDE 154        | 1000 | 14.45 | 76 30-140 |
| 13C12 BDE 153        | 1000 | 15.19 | 74 30-140 |
| 13C12 BDE 183        | 1000 | 17.34 | 68 30-140 |
| 13C12 BDE 197        | 2000 | 19.76 | 79 30-140 |
| 13C12 BDE 207        | 5000 | 21.51 | 64 30-140 |
| 13C12 BDE 209        | 5000 | 23.64 | 87 20-200 |

| Cleanup Standard      | pg   | % Rec | Limits    |
|-----------------------|------|-------|-----------|
| 13C12 BDE 138 Cleanup | 2000 | 16.15 | 83 40-125 |

M

Indicates that a peak has been manually integrated.

R

Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Canada Ltd.

L2529060 PBDE 210106

6 of 6

Page 55 of 57

## Chain of Custody Record

This Chain of Custody is a LEGAL DOCUMENT and must be filled out accurately.

| Section A<br>Required Client Information                                                                                                        |                                            | Section B<br>Required Project Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                            | Section C<br>Invoice Information |  | Section D<br>Rush Status (Subject to Scheduling) |                                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------------------------|--|--------------------------------------------------|-----------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Company:                                                                                                                                        | Grants Pass City of Water Filtration Plant | Project Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Bear Creek Greenway Bridge | Attention:                       |  | <input checked="" type="checkbox"/>              |                                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Address:                                                                                                                                        | 821 SE M Street                            | Project Number:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | by US Cellular Park        | Company Name:                    |  |                                                  | Priority: 5 Business Days (List x 1.50) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                 |                                            | Report To:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Adam B Smith               | Address:                         |  |                                                  | Express: 3 Business Days (List x 1.75)  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Email:                                                                                                                                          | asmith@grantspassoregon.gov                | Copy To:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            |                                  |  |                                                  | Rush: 2 Business Days (List x 2.00)     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Phone:                                                                                                                                          | 541-450-6119                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                            |                                  |  |                                                  | Rush: Same Day (List x 3.00)            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Collected By (Print):                                                                                                                           | Acio Todd                                  | <div style="border: 1px solid black; padding: 5px;">             Analysis Requested             <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> </div> |                            |                                  |  |                                                  |                                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                 |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                            |                                  |  |                                                  |                                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                 |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                            |                                  |  |                                                  |                                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Collected By (Sign):                                                                                                                            | <i>Acio Todd</i>                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                            |                                  |  |                                                  |                                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Email Report <input checked="" type="checkbox"/> Mail Report <input checked="" type="checkbox"/> Fax Report <input checked="" type="checkbox"/> |                                            | Authorized Yes <input type="checkbox"/> No <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                            |                                  |  |                                                  |                                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

[illegible]

| Section F                                                                                                                  |                    |                    |                  | Section G                                                                                                                                        |                                                                |
|----------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| Matrix: DW - Drinking Water   WW - Wastewater   W - Water   S - Sol/Solid   SL - Sludge   O - Oil   WP - Wipe   OT - Other |                    |                    |                  | Lab Use Only                                                                                                                                     |                                                                |
| Relinquish/Receive                                                                                                         | Sign               | Print              | Date             | Time                                                                                                                                             | Temp:                                                          |
| Relinquished By: <i>[Signature]</i>                                                                                        |                    | <i>Arlo Todd</i>   | <i>11/4/2020</i> | <i>11:57</i>                                                                                                                                     | 4°C +/- 2°C:    Yes    No                                      |
| Received By:                                                                                                               |                    |                    |                  |                                                                                                                                                  | Received on Ice: <input checked="" type="checkbox"/> Yes    No |
| Relinquish By:                                                                                                             |                    |                    |                  |                                                                                                                                                  | Number of Bottles Received:                                    |
| Received By:                                                                                                               |                    |                    |                  |                                                                                                                                                  | pH Checked: <i>NA</i>                                          |
| Relinquish By:                                                                                                             |                    |                    |                  |                                                                                                                                                  | COC Seals Intact:    Yes    No <i>NA</i>                       |
| Received By Laboratory:                                                                                                    | <i>[Signature]</i> | <i>Denise Neal</i> | <i>11/4/2020</i> | <i>11:57</i>                                                                                                                                     | Field Blank Included:    Yes    No                             |
|                                                                                                                            |                    |                    |                  | Received Via <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input checked="" type="checkbox"/> Other <input type="checkbox"/> Hand |                                                                |
| Payment: <input checked="" type="checkbox"/> Invoice <input type="checkbox"/> Cash <input type="checkbox"/> VISA, M/C      |                    |                    |                  | Check #    Amount                                                                                                                                |                                                                |



Neilson Research Corporation  
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Medford, OR 97501  
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Website: [www.nrclabs.com](http://www.nrclabs.com)

## Data Flags

WO#: 20110157  
Date: 1/11/2021

- B Analyte detected in the associated method blank.
- BA BOD Alternative Calculation: The initial results performed by Standard Methods did not fall within parameters of the Standard Methods calculation. An alternate approved calculation was performed using the HACH method and the value reported is an estimated concentration.
- C Sample(s) does not meet NELAP/ORELAP sample acceptance criteria. See Case Narrative.
- C1 Sample(s) does not meet NELAP/ORELAP sample acceptance criteria for temperature.
- CF Results confirmed by re-analysis.
- CU Cleanup performed as specified by method.
- D1 The diesel elution pattern for the sample is not typical.
- D2 The sample appears to be a heavier hydrocarbon range than diesel.
- D3 The sample appears to be a lighter hydrocarbon range than diesel.
- D4 Detected hydrocarbons do not have pattern and range consistent with typical petroleum products and may be due to biogenic interference.
- D5 Detected hydrocarbons in the diesel range appear to be weathered diesel.
- E Estimated value.
- ER Elevated reporting limit due to matrix. Report limits (MDLs, MRLs & PQLs) are adjusted based on variations in sample preparation amounts, analytical dilutions, and percent solids, where applicable.
- FC Fecal Coliforms: Sample(s) received past 40 CFR Part 136 specified holding time. Results reported as estimated values.
- G1 The gasoline elution pattern for the sample is not typical.
- G2 The sample appears to be a heavier hydrocarbon range than gasoline.
- G3 The sample appears to be a lighter hydrocarbon range than gasoline.
- G4 Detected hydrocarbons in the gasoline range appear to be weathered gasoline.
- HP Sample re-analysis performed outside of method specified holding time.
- HR Sample received outside of method specified holding time.
- HS Sample analyzed for volatile organics contained headspace.
- HT ☐ At the client's request, the sample was analyzed outside of method specified holding time.
- H Analysis performed outside of method specified holding time.
- J Analyte detected below the Minimum Reporting Limit (MRL) and above the Method Detection Limit (MDL). The J flag result is an estimated value and the user should be aware that this data is of limited reliability.
- L Dissolved metals were not filtered within 15 minutes of collection per 40 CFR Part 136.
- MI Surrogate, Duplicate Sample (DUP) or Matrix Spikes recoveries are out of control limits due to matrix interference. Sample results may be biased.
- N See Case Narrative on page 2 of report.
- NLR No Legionella Recovered.
- PLR Presence of Legionella Recovered.
- Q Initial calibration verification (ICV), continuing calibration verification (CCV) or laboratory control sample (LCS) exceeded high recovery limits, but associated samples are non-detect and the sample results are not affected. Data meets EPA/NELAP requirements.
- R Relative percent difference (RPD) is outside of the accepted recovery limits.
- R1 Relative percent difference (RPD) is outside of the accepted recovery limits. However, analyses are not controlled on RPD values for sample concentrations that are less than the reporting limit.
- R3 The relative percent difference (RPD) and/or percent recovery for the duplicate (DUP) or matrix spike (MS)/matrix spike duplicate (MSD) cannot be accurately calculated due to the concentration of analyte already present in the sample.
- R4 Duplicate analysis failed due to result being at or near the method reporting limit.
- S Surrogate and/or matrix spike recovery is outside of the accepted recovery limits. Sample results may be biased.
- S1 Surrogate or matrix spike recovery is outside of control limits due to dilution necessary for analysis.
- SC Sub-contracted to another laboratory for analysis.
- SP Sample(s) were not collected per EPA Method 5035A protocols. The results are considered minimum values.
- # Value exceeds regulatory level for TCLP contaminant.
- X1 The motor oil elution pattern for the sample is not typical.
- X2 The sample appears to be a heavier hydrocarbon range than motor oil.
- X3 The sample appears to be a lighter hydrocarbon range than motor oil.
- \* Value exceeds Maximum Contaminant Level or is outside the acceptable range.

Original



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January 11, 2021

Adam Smith  
Grants Pass Water Filtration  
821 SE M Street  
Grants Pass, OR 97526  
TEL: (541) 450-6119  
FAX

RE: Bear Creek Greenway Bridge by US Cell

Order No.: 20110721

Dear Adam Smith:

Neilson Research Corporation received 1 sample(s) on 11/16/2020 for the analyses presented in the following report.

The results relate only to the parameters tested or to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of Neilson Research Corporation. If you have any questions regarding these test results, please feel free to call.

Sincerely,  
Neilson Research Corporation

Tamra Schmedemann  
Senior Project Manager  
245 S Grape St  
Medford, OR 97501



Original



Neilson Research Corporation  
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Website: [www.nrclabs.com](http://www.nrclabs.com)

## Case Narrative

WO#: 20110721  
Date: 1/11/2021

---

**CLIENT:** Grants Pass Water Filtration

**Project:** Bear Creek Greenway Bridge by US Cell

---

The analyses were performed according to the guidelines in the Neilson Research Corporation Quality Assurance Program. This report contains analytical results for the sample(s) as received by the laboratory.

Neilson Research Corporation certifies that this report is in compliance with the requirements of NELAP. No unusual difficulties were experienced during analysis of this batch except as noted below or qualified with data flags on the reports.

### GENERAL CHEMISTRY

Holding Time

Acceptance criteria were met

Digestion Exceptions:

None

Analysis:

- A. Method Blank(s): MB  
MB criteria were met.
- B. Matrix Spike Sample(s): MS  
MS criteria were met
- C. Duplicate Sample(s) Dup and/or MSD  
Dup and/or MSD criteria were met
- D. Lab Control Sample(s) LCS  
LCS criteria were met

Asbestos analyses performed by Lab/Cor Inc., Seattle, Washington ORELAP ID 4065. A Copy of the report is enclosed

EPA 1613B Dioxin Furans analysis subcontracted to Appl Labs, 908 N Temperance Ave., Clovis, CA 93611. NELAP-CA 00046. A copy of the report is attached.

---

Original



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## Case Narrative

WO#: 20110721  
Date: 1/11/2021

---

**CLIENT:** Grants Pass Water Filtration

**Project:** Bear Creek Greenway Bridge by US Cell

---

PFAS analysis subcontracted to Appl Labs, 908 N Temperance Ave., Clovis, CA 93611. NELAP-CA 00046. A copy of the report is attached.

PBDE analysis subcontracted to ALS Life Sciences, 1435 Norjohn Court, Unit 1, Burlington, ON, Canada L7L 0E6. A copy of the report is attached.

---

Original



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Website: [www.nrclabs.com](http://www.nrclabs.com)

## Analytical Report

WO#: 20110721  
Date Reported: 1/11/2021

Grants Pass Water Filtration  
821 SE M Street  
Grants Pass, OR 97526

Lab ID: 20110721-01  
Collection Date: 11/15/2020 4:45:00 PM  
Received Date: 11/16/2020 11:47:00 AM

Sample Information:

Client Sample ID: Bear Creek Greenway Bridge  
Sample Collector:  
Matrix: AQUEOUS  
Source: Bear Creek  
Sample Location: Grab

## Top 35 Analysis<sup>TM</sup>

| Analyses                                | Method | NELAP Status | Result   | Qual | DF | RL       | Units | EPA Limit | Date Analyzed  | Analyst |
|-----------------------------------------|--------|--------------|----------|------|----|----------|-------|-----------|----------------|---------|
| Aluminum                                | E200.7 | A            | 4.29     | *    | 1  | 0.0200   | mg/L  | 0.200     | 11/17/20 19:45 | SJS     |
| Antimony                                | E200.8 | A            | 0.000604 |      | 1  | 0.000500 | mg/L  | 0.00600   | 11/17/20 20:56 | SJS     |
| Arsenic                                 | E200.8 | A            | 0.00279  |      | 1  | 0.00100  | mg/L  | 0.0100    | 11/17/20 20:56 | SJS     |
| Barium                                  | E200.8 | A            | 0.0935   |      | 1  | 0.000500 | mg/L  | 2.00      | 11/17/20 20:56 | SJS     |
| Beryllium                               | E200.7 | A            | ND       |      | 1  | 0.000500 | mg/L  | 0.00400   | 11/17/20 19:45 | SJS     |
| Boron                                   | E200.7 | A            | 0.322    |      | 1  | 0.0500   | mg/L  |           | 11/17/20 19:45 | SJS     |
| Cadmium                                 | E200.8 | A            | ND       |      | 1  | 0.000100 | mg/L  | 0.00500   | 11/17/20 20:56 | SJS     |
| Calcium                                 | E200.7 | A            | 31.2     |      | 1  | 1.00     | mg/L  |           | 11/17/20 19:45 | SJS     |
| Chloride                                | E300.0 | A            | 16.4     |      | 1  | 1.00     | mg/L  | 250       | 11/17/20 2:26  | KEC     |
| Chromium                                | E200.8 | A            | 0.00435  |      | 1  | 0.00100  | mg/L  | 0.100     | 11/17/20 20:56 | SJS     |
| Copper                                  | E200.7 | A            | 0.0112   |      | 1  | 0.0100   | mg/L  | 1.30      | 11/17/20 19:45 | SJS     |
| Fluoride                                | E300.0 | A            | ND       |      | 1  | 0.200    | mg/L  | 4.00      | 11/17/20 2:26  | KEC     |
| Hardness, Total (As CaCO <sub>3</sub> ) | A2340B | A            | 120      |      | 1  | 6.62     | mg/L  | 250       | 11/17/20 19:45 | SJS     |
| Iron                                    | E200.7 | A            | 5.37     | *    | 1  | 0.0150   | mg/L  | 0.300     | 11/17/20 19:45 | SJS     |
| Lead                                    | E200.8 | A            | 0.00294  |      | 1  | 0.000100 | mg/L  | 0.0150    | 11/17/20 20:56 | SJS     |
| Lithium                                 | E200.7 | A            | ND       |      | 1  | 0.100    | mg/L  |           | 11/17/20 19:45 | SJS     |
| Magnesium                               | E200.7 | A            | 10.2     |      | 1  | 1.00     | mg/L  |           | 11/17/20 19:45 | SJS     |
| Manganese                               | E200.7 | A            | 0.860    | *    | 1  | 0.0200   | mg/L  | 0.0500    | 11/17/20 19:45 | SJS     |
| Molybdenum                              | E200.8 | A            | ND       |      | 1  | 0.00100  | mg/L  |           | 11/17/20 20:56 | SJS     |
| Nickel                                  | E200.8 | A            | 0.00485  |      | 1  | 0.000500 | mg/L  | 0.100     | 11/17/20 20:56 | SJS     |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

C1 Sample container temperature is out of limit as specified at testcod  
H Holding times for preparation or analysis exceeded  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

### NELAP

NELAP A Accredited. ORELAP 100016, OR-028

Original

Results are out of the EPA limits





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## Analytical Report

WO#: 20110721  
Date Reported: 1/11/2021

Grants Pass Water Filtration  
821 SE M Street  
Grants Pass, OR 97526

Lab ID: 20110721-01  
Collection Date: 11/15/2020 4:45:00 PM  
Received Date: 11/16/2020 11:47:00 AM

Sample Information:

Client Sample ID: Bear Creek Greenway Bridge  
Sample Collector:  
Matrix: AQUEOUS  
Source: Bear Creek  
Sample Location: Grab

## Top 35 Analysis<sup>TM</sup>

| Analyses             | Method    | NELAP Status | Result   | Qual | DF | RL       | Units    | EPA Limit | Date Analyzed  | Analyst |
|----------------------|-----------|--------------|----------|------|----|----------|----------|-----------|----------------|---------|
| Nitrogen, Nitrate    | E300.0    | A            | 0.789    |      | 1  | 0.200    | mg/L     | 10.0      | 11/17/20 2:26  | KEC     |
| Nitrogen, Nitrite    | E300.0    | A            | ND       |      | 1  | 0.0500   | mg/L     | 1.00      | 11/17/20 2:26  | KEC     |
| pH                   | A4500-H+B | A            | 7.53     |      | 1  | 0.10     | pH Units | 6.50-8.50 | 11/16/20 16:20 | DLM     |
| Potassium            | E200.7    | A            | 6.90     |      | 1  | 1.00     | mg/L     |           | 11/19/20 12:25 | SJS     |
| Selenium             | E200.8    | A            | ND       |      | 1  | 0.00100  | mg/L     | 0.0500    | 11/17/20 20:56 | SJS     |
| Silica               | E200.7    | A            | 35.4     |      | 1  | 2.14     | mg/L     |           | 11/17/20 19:45 | SJS     |
| Silver               | E200.8    | A            | ND       |      | 1  | 0.000500 | mg/L     | 0.100     | 11/17/20 20:56 | SJS     |
| Sodium               | E200.7    | A            | 18.4     |      | 1  | 1.00     | mg/L     | 200       | 11/17/20 19:45 | SJS     |
| Specific Conductance | A2510B    | A            | 298      |      | 1  | 1.00     | µmhos/cm |           | 11/16/20 16:20 | DLM     |
| Sulfate              | E300.0    | A            | 22.1     |      | 1  | 0.500    | mg/L     | 250       | 11/17/20 2:26  | KEC     |
| Thallium             | E200.8    | A            | ND       |      | 1  | 0.000500 | mg/L     | 0.00200   | 11/17/20 20:56 | SJS     |
| Turbidity            | A2130     | A            | 8.72     | *    | 1  | 0.100    | NTU      | 1.00-5.00 | 11/16/20 17:42 | DLM     |
| Uranium              | E200.8    | A            | 0.000726 |      | 1  | 0.000100 | mg/L     | 0.0300    | 11/17/20 20:56 | SJS     |
| Vanadium             | E200.8    | A            | 0.0140   |      | 1  | 0.00500  | mg/L     |           | 11/17/20 20:56 | SJS     |
| Zinc                 | E200.7    | A            | ND       |      | 1  | 0.0500   | mg/L     | 5.00      | 11/17/20 19:45 | SJS     |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

C1 Sample container temperature is out of limit as specified at testcod  
H Holding times for preparation or analysis exceeded  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

### NELAP

NELAP A Accredited. ORELAP 100016, OR-028

Original

Results are out of the EPA limits





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Website: [www.nrclabs.com](http://www.nrclabs.com)

## Analytical Report

WO#: 20110721  
Date Reported: 1/11/2021

**CLIENT:** Grants Pass Water Filtration  
**Lab ID:** 20110721-01  
**Client Sample ID** Bear Creek Greenway Bridge  
**Project:** Bear Creek Greenway Bridge by US Cell  
**Sample Address:**

**Collection Date:** 11/15/2020 4:45:00 PM  
**Received Date:** 11/16/2020 11:47:00 AM  
**Matrix:** AQUEOUS

**Sample Location:** Grab

| Analyses               | Method     | NELAP Status | Result | Qual | DF | RL       | Units | MCL | Date Analyzed/Analyst |
|------------------------|------------|--------------|--------|------|----|----------|-------|-----|-----------------------|
| <b>PAH BY SIM</b>      |            |              |        |      |    |          |       |     |                       |
| Acenaphthene           | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/19/20 12:56 TJW    |
| Acenaphthylene         | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/19/20 12:56 TJW    |
| Anthracene             | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/19/20 12:56 TJW    |
| Benzo(a)anthracene     | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/19/20 12:56 TJW    |
| Benzo(a)pyrene         | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/19/20 12:56 TJW    |
| Benzo(b)fluoranthene   | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/19/20 12:56 TJW    |
| Benzo(g,h,i)perylene   | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/19/20 12:56 TJW    |
| Benzo(k)fluoranthene   | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/19/20 12:56 TJW    |
| Chrysene               | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/19/20 12:56 TJW    |
| Dibenz(a,h)anthracene  | EPA 8270 C | A            | ND     |      | 1  | 1.00     | µg/L  |     | 11/19/20 12:56 TJW    |
| Fluoranthene           | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/19/20 12:56 TJW    |
| Fluorene               | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/19/20 12:56 TJW    |
| Indeno(1,2,3-cd)pyrene | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/19/20 12:56 TJW    |
| Naphthalene            | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/19/20 12:56 TJW    |
| Phenanthrene           | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/19/20 12:56 TJW    |
| Pyrene                 | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 11/19/20 12:56 TJW    |
| Surr: 2-Fluorobiphenyl | EPA 8270 C |              | 81.3   |      | 1  | 63 - 110 | %Rec  |     | 11/19/20 12:56 TJW    |
| Surr: 4-Terphenyl-d14  | EPA 8270 C |              | 104    |      | 1  | 68 - 110 | %Rec  |     | 11/19/20 12:56 TJW    |

### VOLATILE ORGANICS BY EPA 524.2

|                                   |           |   |    |   |   |          |      |         |                    |
|-----------------------------------|-----------|---|----|---|---|----------|------|---------|--------------------|
| 1,1,1-Trichloroethane (1,1,1-TCA) | EPA 524.2 | A | ND |   | 1 | 0.000500 | mg/L | 0.200   | 11/19/20 15:10 CSB |
| 1,1,2-Trichloroethane             | EPA 524.2 | A | ND |   | 1 | 0.000500 | mg/L | 0.00500 | 11/19/20 15:10 CSB |
| 1,1-Dichloroethylene              | EPA 524.2 | A | ND |   | 1 | 0.000500 | mg/L | 0.00700 | 11/19/20 15:10 CSB |
| 1,2,4-Trichlorobenzene            | EPA 524.2 | A | ND | Q | 1 | 0.000500 | mg/L | 0.0700  | 11/24/20 13:01 CSB |
| 1,2-Dichloroethane (EDC)          | EPA 524.2 | A | ND |   | 1 | 0.000500 | mg/L | 0.00500 | 11/19/20 15:10 CSB |
| 1,2-Dichloropropane               | EPA 524.2 | A | ND |   | 1 | 0.000500 | mg/L | 0.00500 | 11/19/20 15:10 CSB |

#### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

Original

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## Analytical Report

WO#: 20110721  
Date Reported: 1/11/2021

**CLIENT:** Grants Pass Water Filtration  
**Lab ID:** 20110721-01  
**Client Sample ID** Bear Creek Greenway Bridge  
**Project:** Bear Creek Greenway Bridge by US Cell  
**Sample Address:**

**Collection Date:** 11/15/2020 4:45:00 PM  
**Received Date:** 11/16/2020 11:47:00 AM  
**Matrix:** AQUEOUS

**Sample Location:** Grab

| Analyses                              | Method    | NELAP Status | Result | Qual | DF | RL       | Units | MCL     | Date Analyzed/Analyst |
|---------------------------------------|-----------|--------------|--------|------|----|----------|-------|---------|-----------------------|
| <b>VOLATILE ORGANICS BY EPA 524.2</b> |           |              |        |      |    |          |       |         |                       |
| Benzene                               | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.00500 | 11/19/20 15:10 CSB    |
| Carbon tetrachloride                  | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.00500 | 11/19/20 15:10 CSB    |
| cis-1,2-Dichloroethene                | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.0700  | 11/19/20 15:10 CSB    |
| Dichloromethane                       | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.00500 | 11/19/20 15:10 CSB    |
| Ethylbenzene                          | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.700   | 11/19/20 15:10 CSB    |
| Monochlorobenzene                     | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.100   | 11/19/20 15:10 CSB    |
| o-Dichlorobenzene                     | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.600   | 11/19/20 15:10 CSB    |
| p-Dichlorobenzene                     | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.0750  | 11/19/20 15:10 CSB    |
| Styrene                               | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.100   | 11/19/20 15:10 CSB    |
| Tetrachloroethene (PCE)               | EPA 524.2 | A            | ND     | Q    | 1  | 0.000500 | mg/L  | 0.00500 | 11/19/20 15:10 CSB    |
| Toluene                               | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 1.00    | 11/19/20 15:10 CSB    |
| trans-1,2-Dichloroethylene            | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.100   | 11/19/20 15:10 CSB    |
| Trichloroethene (TCE)                 | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.00500 | 11/19/20 15:10 CSB    |
| Vinyl chloride                        | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.00200 | 11/19/20 15:10 CSB    |
| Xylenes, Total                        | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 10.0    | 11/19/20 15:10 CSB    |
| 1,1,1,2-Tetrachloroethane             | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/19/20 15:10 CSB    |
| 1,1,2,2-Tetrachloroethane             | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/19/20 15:10 CSB    |
| 1,1-Dichloroethane                    | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/19/20 15:10 CSB    |
| 1,1-Dichloropropene                   | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/19/20 15:10 CSB    |
| 1,2,3-Trichloropropane                | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/19/20 15:10 CSB    |
| 1,3-Dichloropropane                   | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/19/20 15:10 CSB    |
| 1,3-Dichloropropene                   | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/19/20 15:10 CSB    |
| 2,2-Dichloropropane                   | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/19/20 15:10 CSB    |
| Bromobenzene                          | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/19/20 15:10 CSB    |
| Bromodichloromethane                  | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/19/20 15:10 CSB    |
| Bromoform                             | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/19/20 15:10 CSB    |
| Bromomethane                          | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/19/20 15:10 CSB    |
| Chloroethane                          | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 11/19/20 15:10 CSB    |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

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## Analytical Report

WO#: 20110721  
Date Reported: 1/11/2021

**CLIENT:** Grants Pass Water Filtration  
**Lab ID:** 20110721-01  
**Client Sample ID** Bear Creek Greenway Bridge  
**Project:** Bear Creek Greenway Bridge by US Cell  
**Sample Address:**

**Collection Date:** 11/15/2020 4:45:00 PM  
**Received Date:** 11/16/2020 11:47:00 AM  
**Matrix:** AQUEOUS

**Sample Location:** Grab

| Analyses | Method | NELAP Status | Result | Qual | DF | RL | Units | MCL | Date Analyzed/Analyst |
|----------|--------|--------------|--------|------|----|----|-------|-----|-----------------------|
|----------|--------|--------------|--------|------|----|----|-------|-----|-----------------------|

### VOLATILE ORGANICS BY EPA 524.2

|                            |           |   |     |  |   |          |      |  |                    |
|----------------------------|-----------|---|-----|--|---|----------|------|--|--------------------|
| Chloroform                 | EPA 524.2 | A | ND  |  | 1 | 0.000500 | mg/L |  | 11/19/20 15:10 CSB |
| Chloromethane              | EPA 524.2 | A | ND  |  | 1 | 0.000500 | mg/L |  | 11/19/20 15:10 CSB |
| Dibromochloromethane       | EPA 524.2 | A | ND  |  | 1 | 0.000500 | mg/L |  | 11/19/20 15:10 CSB |
| Dibromomethane             | EPA 524.2 | A | ND  |  | 1 | 0.000500 | mg/L |  | 11/19/20 15:10 CSB |
| m-Dichlorobenzene          | EPA 524.2 | A | ND  |  | 1 | 0.000500 | mg/L |  | 11/19/20 15:10 CSB |
| Methyl tert-butyl ether    | EPA 524.2 | A | ND  |  | 1 | 0.000500 | mg/L |  | 11/19/20 15:10 CSB |
| o-Chlorotoluene            | EPA 524.2 | A | ND  |  | 1 | 0.000500 | mg/L |  | 11/19/20 15:10 CSB |
| p-Chlorotoluene            | EPA 524.2 | A | ND  |  | 1 | 0.000500 | mg/L |  | 11/19/20 15:10 CSB |
| Surr:                      | EPA 524.2 |   | 103 |  | 1 | 80 - 120 | %Rec |  | 11/19/20 15:10 CSB |
| Dibromofluoromethane       |           |   |     |  |   |          |      |  |                    |
| Surr: Toluene-d8           | EPA 524.2 |   | 110 |  | 1 | 80 - 120 | %Rec |  | 11/19/20 15:10 CSB |
| Surr: 4-Bromofluorobenzene | EPA 524.2 |   | 112 |  | 1 | 80 - 120 | %Rec |  | 11/19/20 15:10 CSB |

### CHLORINATED PESTICIDES/PCBS

|                                  |         |   |     |  |   |           |      |          |                    |
|----------------------------------|---------|---|-----|--|---|-----------|------|----------|--------------------|
| Aldrin                           | EPA 508 | A | ND  |  | 1 | 0.0000100 | mg/L |          | 11/24/20 12:29 TJW |
| Chlordane                        | EPA 508 | A | ND  |  | 1 | 0.000250  | mg/L | 0.00200  | 11/24/20 12:29 TJW |
| Dieldrin                         | EPA 508 | A | ND  |  | 1 | 0.0000100 | mg/L |          | 11/24/20 12:29 TJW |
| Endrin                           | EPA 508 | A | ND  |  | 1 | 0.0000100 | mg/L | 0.00200  | 11/24/20 12:29 TJW |
| gamma-BHC (Lindane)              | EPA 508 | A | ND  |  | 1 | 0.0000100 | mg/L | 0.000200 | 11/24/20 12:29 TJW |
| Heptachlor                       | EPA 508 | A | ND  |  | 1 | 0.0000100 | mg/L | 0.000400 | 11/24/20 12:29 TJW |
| Heptachlor epoxide               | EPA 508 | A | ND  |  | 1 | 0.0000100 | mg/L | 0.000200 | 11/24/20 12:29 TJW |
| Methoxychlor                     | EPA 508 | A | ND  |  | 1 | 0.000100  | mg/L | 0.0400   | 11/24/20 12:29 TJW |
| Polychlorinated Biphenyls (PCBs) | EPA 508 | A | ND  |  | 1 | 0.000250  | mg/L | 0.000500 | 11/24/20 12:29 TJW |
| Toxaphene                        | EPA 508 | A | ND  |  | 1 | 0.000300  | mg/L | 0.00300  | 11/24/20 12:29 TJW |
| Surr: Decachlorobiphenyl         | EPA 508 |   | 127 |  | 1 | 70 - 130  | %Rec |          | 11/24/20 12:29 TJW |

### QUALIFIERS

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C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

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## Analytical Report

WO#: 20110721  
Date Reported: 1/11/2021

**CLIENT:** Grants Pass Water Filtration  
**Lab ID:** 20110721-01  
**Client Sample ID** Bear Creek Greenway Bridge  
**Project:** Bear Creek Greenway Bridge by US Cell  
**Sample Address:**

**Collection Date:** 11/15/2020 4:45:00 PM  
**Received Date:** 11/16/2020 11:47:00 AM  
**Matrix:** AQUEOUS

**Sample Location:** Grab

| Analyses                       | Method    | NELAP Status | Result       | Qual | DF | RL       | Units     | MCL     | Date Analyzed/Analyst |
|--------------------------------|-----------|--------------|--------------|------|----|----------|-----------|---------|-----------------------|
| <b>MERCURY BY EPA 245.1</b>    |           |              |              |      |    |          |           |         |                       |
| Mercury                        | EPA 245.1 | A            | ND           |      | 1  | 0.000200 | mg/L      | 0.00200 | 11/23/20 12:10 KMC    |
| <b>BACTERIA BY QUANTI-TRAY</b> |           |              |              |      |    |          |           |         |                       |
| E. Coli Bacteria               | SM 9223 B | A            | >2420        | HR   | 1  | 1.00     | MPN/100mL |         | 11/16/20 12:07 CEM    |
| <b>DIOXINS/FURANS</b>          |           |              |              |      |    |          |           |         |                       |
| Dioxins                        | EPA 1613B |              | See Attached | SC   | 1  | 0        | pg/L      |         | 12/04/20 0:00 TAK     |
| Furans                         | EPA 1613B |              | See Attached | SC   | 1  | 0        | pg/L      |         | 12/04/20 0:00 TAK     |
| <b>CYANIDE, TOTAL</b>          |           |              |              |      |    |          |           |         |                       |
| Cyanide, Total                 | EPA 335.4 | A            | ND           | MI   | 1  | 0.00500  | mg/L      |         | 11/23/20 10:50 SCM    |
| <b>TOTAL KJELDAHL NITROGEN</b> |           |              |              |      |    |          |           |         |                       |
| Nitrogen, Kjeldahl, Total      | EPA 351.2 | A            | 2.26         |      | 1  | 0.625    | mg/L      |         | 11/20/20 16:17 SCM    |
| <b>SUB MISCELLANEOUS</b>       |           |              |              |      |    |          |           |         |                       |
| TEM Water Amphibole            | SUB-MISC  |              | See Attached | SC   | 1  | 0        |           |         | 11/20/20 0:00 TAK     |
| TEM Water Chrysotile           | SUB-MISC  |              | See Attached | SC   | 1  | 0        |           |         | 11/20/20 0:00 TAK     |
| TEM Water Total                | SUB-MISC  |              | See Attached | SC   | 1  | 0        |           |         | 11/20/20 0:00 TAK     |
| <b>SUB MISCELLANEOUS</b>       |           |              |              |      |    |          |           |         |                       |
| PFAS                           | SUB-MISC  |              | See Attached | SC   | 1  |          | ng/L      |         | 12/10/20 0:00 TAK     |

### QUALIFIERS

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MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

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## Analytical Report

WO#: 20110721  
Date Reported: 1/11/2021

**CLIENT:** Grants Pass Water Filtration  
**Lab ID:** 20110721-01  
**Client Sample ID** Bear Creek Greenway Bridge  
**Project:** Bear Creek Greenway Bridge by US Cell  
**Sample Address:**

**Collection Date:** 11/15/2020 4:45:00 PM  
**Received Date:** 11/16/2020 11:47:00 AM  
**Matrix:** AQUEOUS

**Sample Location:** Grab

| Analyses                                  | Method      | NELAP Status | Result       | Qual | DF | RL     | Units | MCL | Date Analyzed/Analyst |
|-------------------------------------------|-------------|--------------|--------------|------|----|--------|-------|-----|-----------------------|
| <b>SUB MISCELLANEOUS</b>                  |             |              |              |      |    |        |       |     |                       |
| PBDEs                                     | SUB-MISC    |              | See Attached | SC   | 1  |        | pg/L  |     | 12/31/20 23:59 TAK    |
| <b>TOTAL ORGANIC CARBON</b>               |             |              |              |      |    |        |       |     |                       |
| Organic Carbon, Total                     | SM 5310 C   | A            | 16.3         |      | 10 | 1.00   | mg/L  |     | 11/20/20 21:29 SJS    |
| <b>TOTAL ALKALINITY</b>                   |             |              |              |      |    |        |       |     |                       |
| Alkalinity, Total (As CaCO <sub>3</sub> ) | SM 2320B    | A            | 116          |      | 1  | 10.0   | mg/L  |     | 11/19/20 10:44 DLM    |
| <b>TOTAL PHOSPHORUS AS P</b>              |             |              |              |      |    |        |       |     |                       |
| Phosphorus, Total (As P)                  | SM 4500-P E | A            | 0.624        |      | 1  | 0.0250 | mg/L  |     | 11/17/20 9:40 DLM     |
| <b>TOTAL SUSPENDED SOLIDS</b>             |             |              |              |      |    |        |       |     |                       |
| Total Suspended Solids                    | SM 2540 D   | A            | 150          |      | 1  | 4.00   | mg/L  |     | 11/18/20 0:00 DLM     |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
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ND Not Detected at the Reporting Limit

C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
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Original

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# QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** ALK

|                              |                  |               |             |                           |                                                        |
|------------------------------|------------------|---------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: MB-R17146         | SampleType: MBLK | TestCode: ALK | Units: mg/L | Prep Date:                | RunNo: 17146                                           |
| Client ID: PBW               | Batch ID: R17146 | TestNo: A2320 |             | Analysis Date: 11/19/2020 | SeqNo: 247033                                          |
| Analyte                      | Result           | PQL           | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Alkalinity, Total (As CaCO3) | ND               | 10.0          |             |                           |                                                        |

|                              |                  |               |             |                           |                                                        |
|------------------------------|------------------|---------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: LCS-R17146        | SampleType: LCS  | TestCode: ALK | Units: mg/L | Prep Date:                | RunNo: 17146                                           |
| Client ID: LCSW              | Batch ID: R17146 | TestNo: A2320 |             | Analysis Date: 11/19/2020 | SeqNo: 247034                                          |
| Analyte                      | Result           | PQL           | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Alkalinity, Total (As CaCO3) | 50.0             | 10.0          | 50.00       | 0                         | 100 80 120                                             |

|                              |                  |               |             |                           |                                                        |
|------------------------------|------------------|---------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20110521-01BDUP   | SampleType: DUP  | TestCode: ALK | Units: mg/L | Prep Date:                | RunNo: 17146                                           |
| Client ID: BatchQC           | Batch ID: R17146 | TestNo: A2320 |             | Analysis Date: 11/19/2020 | SeqNo: 247036                                          |
| Analyte                      | Result           | PQL           | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Alkalinity, Total (As CaCO3) | 136              | 10.0          |             |                           | 138.0 1.46 10                                          |

|                    |                                                               |    |                                                                       |    |                                                  |
|--------------------|---------------------------------------------------------------|----|-----------------------------------------------------------------------|----|--------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.                    | C1 | Sample container temperature is out of limit as specified at testcode | H  | Holding times for preparation or analysis exceed |
|                    | MI Recovery outside control limits due to Matrix Interference | ND | Not Detected at the Reporting Limit                                   | PL | Permit Limit                                     |
|                    | RL Reporting Detection Limit                                  |    |                                                                       |    |                                                  |

Original



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245 S Grape St  
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Website: www.nrclabs.com

## QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** CYANIDE\_W

|                    |                |                     |             |                           |                                                        |
|--------------------|----------------|---------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: MB-8783 | SampType: MBLK | TestCode: CYANIDE_W | Units: mg/L | Prep Date: 11/20/2020     | RunNo: 17256                                           |
| Client ID: PBW     | Batch ID: 8783 | TestNo: E335.4      | E335.4      | Analysis Date: 11/23/2020 | SeqNo: 248971                                          |
| Analyte            | Result         | PQL                 | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Cyanide, Total     | ND             | 0.00500             |             |                           |                                                        |

|                     |                |                     |             |                           |                                                        |
|---------------------|----------------|---------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: LCS-8783 | SampType: LCS  | TestCode: CYANIDE_W | Units: mg/L | Prep Date: 11/20/2020     | RunNo: 17256                                           |
| Client ID: LCSW     | Batch ID: 8783 | TestNo: E335.4      | E335.4      | Analysis Date: 11/23/2020 | SeqNo: 248973                                          |
| Analyte             | Result         | PQL                 | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Cyanide, Total      | 0.0383         | 0.00500             | 0           | 95.8                      | 90 110                                                 |

|                               |                |                     |             |                           |                                                        |
|-------------------------------|----------------|---------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20110721-01CMS     | SampType: MS   | TestCode: CYANIDE_W | Units: mg/L | Prep Date: 11/20/2020     | RunNo: 17256                                           |
| Client ID: Bear Creek Greenwa | Batch ID: 8783 | TestNo: E335.4      | E335.4      | Analysis Date: 11/23/2020 | SeqNo: 248975                                          |
| Analyte                       | Result         | PQL                 | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Cyanide, Total                | 0.0347         | 0.00500             | 0           | 86.8                      | 80 120                                                 |

|                               |                |                     |             |                           |                                                        |
|-------------------------------|----------------|---------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20110721-01CMSD    | SampType: MSD  | TestCode: CYANIDE_W | Units: mg/L | Prep Date: 11/20/2020     | RunNo: 17256                                           |
| Client ID: Bear Creek Greenwa | Batch ID: 8783 | TestNo: E335.4      | E335.4      | Analysis Date: 11/23/2020 | SeqNo: 248976                                          |
| Analyte                       | Result         | PQL                 | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Cyanide, Total                | 0.0449         | 0.00500             | 0           | 112                       | 80 120 0.03470 25.6 20 MI                              |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. MI Recovery outside control limits due to Matrix Interference. RL Reporting Detection Limit. C1 Sample container temperature is out of limit as specified at testcode. ND Not Detected at the Reporting Limit. H Holding times for preparation or analysis exceed PL Permit Limit.

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# QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA508\_DW

|                                  |                |                     |             |                           |               |          |           |             |      |          |      |
|----------------------------------|----------------|---------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: MB-8786               | SampType: MBLK | TestCode: EPA508_DW | Units: mg/L | Prep Date: 11/20/2020     | RunNo: 17336  |          |           |             |      |          |      |
| Client ID: PBW                   | Batch ID: 8786 | TestNo: E508        | E508        | Analysis Date: 11/24/2020 | SeqNo: 250383 |          |           |             |      |          |      |
| Analyte                          | Result         | PQL                 | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Aldrin                           | ND             | 0.0000100           |             |                           |               |          |           |             |      |          |      |
| Chlordane                        | ND             | 0.000250            |             |                           |               |          |           |             |      |          |      |
| Dieldrin                         | ND             | 0.0000100           |             |                           |               |          |           |             |      |          |      |
| Endrin                           | ND             | 0.0000100           |             |                           |               |          |           |             |      |          |      |
| gamma-BHC (Lindane)              | ND             | 0.0000100           |             |                           |               |          |           |             |      |          |      |
| Heptachlor                       | ND             | 0.0000100           |             |                           |               |          |           |             |      |          |      |
| Heptachlor epoxide               | ND             | 0.0000100           |             |                           |               |          |           |             |      |          |      |
| Methoxychlor                     | ND             | 0.000100            |             |                           |               |          |           |             |      |          |      |
| Polychlorinated Biphenyls (PCBs) | ND             | 0.000250            |             |                           |               |          |           |             |      |          |      |
| Toxaphene                        | ND             | 0.000300            |             |                           |               |          |           |             |      |          |      |
| Surr: Decachlorobiphenyl         | 0.000292       |                     | 0.0002500   |                           | 117           | 70       | 130       |             |      |          |      |

|                          |                |                     |             |                           |               |          |           |             |      |          |      |
|--------------------------|----------------|---------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: LCS-8786      | SampType: LCS  | TestCode: EPA508_DW | Units: mg/L | Prep Date: 11/20/2020     | RunNo: 17336  |          |           |             |      |          |      |
| Client ID: LCSW          | Batch ID: 8786 | TestNo: E508        | E508        | Analysis Date: 11/24/2020 | SeqNo: 250384 |          |           |             |      |          |      |
| Analyte                  | Result         | PQL                 | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Aldrin                   | 0.000183       | 0.0000100           | 0.0002000   | 0                         | 91.6          | 70       | 130       |             |      |          |      |
| Dieldrin                 | 0.000193       | 0.0000100           | 0.0002000   | 0                         | 96.3          | 70       | 130       |             |      |          |      |
| Endrin                   | 0.000160       | 0.0000100           | 0.0002000   | 0                         | 79.8          | 70       | 130       |             |      |          |      |
| gamma-BHC (Lindane)      | 0.000194       | 0.0000100           | 0.0002000   | 0                         | 97.2          | 70       | 130       |             |      |          |      |
| Heptachlor               | 0.000209       | 0.0000100           | 0.0002000   | 0                         | 105           | 70       | 130       |             |      |          |      |
| Heptachlor epoxide       | 0.000185       | 0.0000100           | 0.0002000   | 0                         | 92.6          | 70       | 130       |             |      |          |      |
| Methoxychlor             | 0.000239       | 0.000100            | 0.0002000   | 0                         | 119           | 70       | 130       |             |      |          |      |
| Surr: Decachlorobiphenyl | 0.000313       |                     | 0.0002500   |                           | 125           | 70       | 130       |             |      |          |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. MI Recovery outside control limits due to Matrix Interference. RL Reporting Detection Limit. C1 Sample container temperature is out of limit as specified at testcode. ND Not Detected at the Reporting Limit. H Holding times for preparation or analysis exceed PL Permit Limit.

Original





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## QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA508\_DW

|                     |                |                     |             |                           |               |          |           |             |      |          |      |
|---------------------|----------------|---------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: LCS-8786 | SampType: LCS  | TestCode: EPA508_DW | Units: mg/L | Prep Date: 11/20/2020     | RunNo: 17336  |          |           |             |      |          |      |
| Client ID: LCSW     | Batch ID: 8786 | TestNo: E508        | E508        | Analysis Date: 11/24/2020 | SeqNo: 250384 |          |           |             |      |          |      |
| Analyte             | Result         | PQL                 | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|                          |                |                     |             |                           |               |          |           |             |      |          |      |
|--------------------------|----------------|---------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: LCS-8786-PCB  | SampType: LCS1 | TestCode: EPA508_DW | Units: %Rec | Prep Date: 11/20/2020     | RunNo: 17336  |          |           |             |      |          |      |
| Client ID: BatchQC       | Batch ID: 8786 | TestNo: E508        | E508        | Analysis Date: 11/24/2020 | SeqNo: 250385 |          |           |             |      |          |      |
| Analyte                  | Result         | PQL                 | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Surr: Decachlorobiphenyl | 0.000295       |                     | 0.0002500   |                           | 118           | 70       | 130       |             |      |          |      |

|                           |          |                |           |                     |      |             |           |                           |      |               |      |
|---------------------------|----------|----------------|-----------|---------------------|------|-------------|-----------|---------------------------|------|---------------|------|
| Sample ID: 20110868-02AMS |          | SampType: MS   |           | TestCode: EPA508_DW |      | Units: mg/L |           | Prep Date: 11/20/2020     |      | RunNo: 17336  |      |
| Client ID: BatchQC        |          | Batch ID: 8786 |           | TestNo: E508        |      | E508        |           | Analysis Date: 11/24/2020 |      | SeqNo: 250388 |      |
| Analyte                   | Result   | PQL            | SPK value | SPK Ref Val         | %REC | LowLimit    | HighLimit | RPD Ref Val               | %RPD | RPDLimit      | Qual |
| Aldrin                    | 0.000186 | 0.0000100      | 0.0002000 | 0                   | 93.1 | 70          | 130       |                           |      |               |      |
| Dieldrin                  | 0.000193 | 0.0000100      | 0.0002000 | 0                   | 96.5 | 70          | 130       |                           |      |               |      |
| Endrin                    | 0.000170 | 0.0000100      | 0.0002000 | 0                   | 84.9 | 70          | 130       |                           |      |               |      |
| gamma-BHC (Lindane)       | 0.000196 | 0.0000100      | 0.0002000 | 0                   | 97.8 | 70          | 130       |                           |      |               |      |
| Heptachlor                | 0.000214 | 0.0000100      | 0.0002000 | 0                   | 107  | 70          | 130       |                           |      |               |      |
| Heptachlor epoxide        | 0.000188 | 0.0000100      | 0.0002000 | 0                   | 93.8 | 70          | 130       |                           |      |               |      |
| Methoxychlor              | 0.000239 | 0.000100       | 0.0002000 | 0                   | 120  | 70          | 130       |                           |      |               |      |
| Surr: Decachlorobiphenyl  | 0.000290 |                | 0.0002500 |                     | 116  | 70          | 130       |                           |      |               |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. MI Recovery outside control limits due to Matrix Interference. RL Reporting Detection Limit. C1 Sample container temperature is out of limit as specified at testcode. ND Not Detected at the Reporting Limit. H Holding times for preparation or analysis exceed PL Permit Limit.

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# QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA508\_DW

|                            |          |                |           |                     |      |             |           |                           |        |               |      |
|----------------------------|----------|----------------|-----------|---------------------|------|-------------|-----------|---------------------------|--------|---------------|------|
| Sample ID: 20110868-02AMSD |          | SampType: MSD  |           | TestCode: EPA508_DW |      | Units: mg/L |           | Prep Date: 11/20/2020     |        | RunNo: 17336  |      |
| Client ID: BatchQC         |          | Batch ID: 8786 |           | TestNo: E508        |      | E508        |           | Analysis Date: 11/24/2020 |        | SeqNo: 250389 |      |
| Analyte                    | Result   | PQL            | SPK value | SPK Ref Val         | %REC | LowLimit    | HighLimit | RPD Ref Val               | %RPD   | RPDLimit      | Qual |
| Aldrin                     | 0.000184 | 0.0000100      | 0.0002000 | 0                   | 92.1 | 70          | 130       | 0.0001863                 | 1.13   | 20            |      |
| Dieldrin                   | 0.000191 | 0.0000100      | 0.0002000 | 0                   | 95.6 | 70          | 130       | 0.0001930                 | 0.974  | 20            |      |
| Endrin                     | 0.000185 | 0.0000100      | 0.0002000 | 0                   | 92.4 | 70          | 130       | 0.0001699                 | 8.43   | 20            |      |
| gamma-BHC (Lindane)        | 0.000198 | 0.0000100      | 0.0002000 | 0                   | 99.2 | 70          | 130       | 0.0001956                 | 1.46   | 20            |      |
| Heptachlor                 | 0.000211 | 0.0000100      | 0.0002000 | 0                   | 105  | 70          | 130       | 0.0002142                 | 1.63   | 20            |      |
| Heptachlor epoxide         | 0.000185 | 0.0000100      | 0.0002000 | 0                   | 92.3 | 70          | 130       | 0.0001875                 | 1.59   | 20            |      |
| Methoxychlor               | 0.000239 | 0.000100       | 0.0002000 | 0                   | 120  | 70          | 130       | 0.0002395                 | 0.0794 | 20            |      |
| Surr: Decachlorobiphenyl   | 0.000303 |                | 0.0002500 |                     | 121  | 70          | 130       |                           | 0      |               |      |

| Qualifiers: | *  | Value exceeds Maximum Contaminant Level. |                                                            | C1 | Sample container temperature is out of limit as specified at testcode |                                     | H | Holding times for preparation or analysis exceed |              |
|-------------|----|------------------------------------------|------------------------------------------------------------|----|-----------------------------------------------------------------------|-------------------------------------|---|--------------------------------------------------|--------------|
|             |    | MI                                       | Recovery outside control limits due to Matrix Interference |    | ND                                                                    | Not Detected at the Reporting Limit |   | PL                                               | Permit Limit |
|             | RL | Reporting Detection Limit                |                                                            |    |                                                                       |                                     |   |                                                  |              |

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# QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

| Sample ID: LCS                    |                  | SampType: LCS  |        | TestCode: EPA524.2_D |           | Units: mg/L |      | RunNo: 17147              |               |
|-----------------------------------|------------------|----------------|--------|----------------------|-----------|-------------|------|---------------------------|---------------|
| Client ID: LCSW                   | Batch ID: R17147 | TestNo: E524.2 | Result | PQL                  | SPK value | SPK Ref Val | %REC | Analysis Date: 11/19/2020 | SeqNo: 247047 |
| Analyte                           |                  |                |        |                      |           |             |      | Prep Date:                |               |
|                                   |                  |                |        |                      |           |             |      | HighLimit                 | RPD           |
|                                   |                  |                |        |                      |           |             |      | LowLimit                  | RPDLimit      |
|                                   |                  |                |        |                      |           |             |      |                           | Qual          |
| 1,1,1-Trichloroethane (1,1,1-TCA) |                  |                | 0.0183 | 0.000500             | 0.02000   | 0           | 91.6 | 70                        | 130           |
| 1,1,2-Trichloroethane             |                  |                | 0.0185 | 0.000500             | 0.02000   | 0           | 92.6 | 70                        | 130           |
| 1,1-Dichloroethylene              |                  |                | 0.0176 | 0.000500             | 0.02000   | 0           | 88.2 | 70                        | 130           |
| 1,2-Dichloroethane (EDC)          |                  |                | 0.0187 | 0.000500             | 0.02000   | 0           | 93.6 | 70                        | 130           |
| 1,2-Dichloropropane               |                  |                | 0.0191 | 0.000500             | 0.02000   | 0           | 95.6 | 70                        | 130           |
| Benzene                           |                  |                | 0.0176 | 0.000500             | 0.02000   | 0           | 88.2 | 70                        | 130           |
| Carbon tetrachloride              |                  |                | 0.0178 | 0.000500             | 0.02000   | 0           | 88.9 | 70                        | 130           |
| cis-1,2-Dichloroethene            |                  |                | 0.0191 | 0.000500             | 0.02000   | 0           | 95.4 | 70                        | 130           |
| Dichloromethane                   |                  |                | 0.0172 | 0.000500             | 0.02000   | 0           | 85.8 | 70                        | 130           |
| Ethylbenzene                      |                  |                | 0.0188 | 0.000500             | 0.02000   | 0           | 94.2 | 70                        | 130           |
| Monochlorobenzene                 |                  |                | 0.0189 | 0.000500             | 0.02000   | 0           | 94.4 | 70                        | 130           |
| o-Dichlorobenzene                 |                  |                | 0.0189 | 0.000500             | 0.02000   | 0           | 94.4 | 70                        | 130           |
| p-Dichlorobenzene                 |                  |                | 0.0179 | 0.000500             | 0.02000   | 0           | 89.5 | 70                        | 130           |
| Styrene                           |                  |                | 0.0194 | 0.000500             | 0.02000   | 0           | 97.0 | 70                        | 130           |
| Tetrachloroethene (PCE)           |                  |                | 0.0176 | 0.000500             | 0.02000   | 0           | 88.1 | 70                        | 130           |
| Toluene                           |                  |                | 0.0187 | 0.000500             | 0.02000   | 0           | 93.6 | 70                        | 130           |
| trans-1,2-Dichloroethylene        |                  |                | 0.0180 | 0.000500             | 0.02000   | 0           | 90.0 | 70                        | 130           |
| Trichloroethene (TCE)             |                  |                | 0.0178 | 0.000500             | 0.02000   | 0           | 88.8 | 70                        | 130           |
| Vinyl chloride                    |                  |                | 0.0178 | 0.000500             | 0.02000   | 0           | 89.2 | 70                        | 130           |
| Xylenes, Total                    |                  |                | 0.0583 | 0.000500             | 0.06000   | 0           | 97.1 | 70                        | 130           |
| 1,1,1,2-Tetrachloroethane         |                  |                | 0.0181 | 0.000500             | 0.02000   | 0           | 90.3 | 70                        | 130           |
| 1,1,2,2-Tetrachloroethane         |                  |                | 0.0183 | 0.000500             | 0.02000   | 0           | 91.7 | 70                        | 130           |
| 1,1-Dichloroethane                |                  |                | 0.0183 | 0.000500             | 0.02000   | 0           | 91.3 | 70                        | 130           |
| 1,1-Dichloropropene               |                  |                | 0.0190 | 0.000500             | 0.02000   | 0           | 94.9 | 70                        | 130           |
| 1,2,3-Trichloropropane            |                  |                | 0.0186 | 0.000500             | 0.02000   | 0           | 92.8 | 70                        | 130           |
| 1,3-Dichloropropane               |                  |                | 0.0187 | 0.000500             | 0.02000   | 0           | 93.4 | 70                        | 130           |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit  
C1 Sample container temperature is out of limit as specified at testcode  
ND Not Detected at the Reporting Limit  
H Holding times for preparation or analysis exceed  
PL Permit Limit

Original



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# QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

| Sample ID: LCS             | Sample Type: LCS | TestCode: EPA524.2_D | Units: mg/L | Prep Date:                | RunNo: 17147  |          |           |             |      |          |      |
|----------------------------|------------------|----------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Client ID: LCSW            | Batch ID: R17147 | TestNo: E524.2       |             | Analysis Date: 11/19/2020 | SeqNo: 247047 |          |           |             |      |          |      |
| Analyte                    | Result           | PQL                  | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| 1,3-Dichloropropene        | 0.0360           | 0.000500             | 0.04000     | 0                         | 90.0          | 70       | 130       |             |      |          |      |
| 2,2-Dichloropropane        | 0.0184           | 0.000500             | 0.02000     | 0                         | 92.2          | 70       | 130       |             |      |          |      |
| Bromobenzene               | 0.0186           | 0.000500             | 0.02000     | 0                         | 93.1          | 70       | 130       |             |      |          |      |
| Bromodichloromethane       | 0.0182           | 0.000500             | 0.02000     | 0                         | 90.9          | 70       | 130       |             |      |          |      |
| Bromoform                  | 0.0161           | 0.000500             | 0.02000     | 0                         | 80.6          | 70       | 130       |             |      |          |      |
| Bromomethane               | 0.0180           | 0.000500             | 0.02000     | 0                         | 90.0          | 70       | 130       |             |      |          |      |
| Chloroethane               | 0.0161           | 0.000500             | 0.02000     | 0                         | 80.3          | 70       | 130       |             |      |          |      |
| Chloroform                 | 0.0189           | 0.000500             | 0.02000     | 0                         | 94.4          | 70       | 130       |             |      |          |      |
| Chloromethane              | 0.0171           | 0.000500             | 0.02000     | 0                         | 85.4          | 70       | 130       |             |      |          |      |
| Dibromochloromethane       | 0.0172           | 0.000500             | 0.02000     | 0                         | 85.8          | 70       | 130       |             |      |          |      |
| Dibromomethane             | 0.0183           | 0.000500             | 0.02000     | 0                         | 91.7          | 70       | 130       |             |      |          |      |
| m-Dichlorobenzene          | 0.0189           | 0.000500             | 0.02000     | 0                         | 94.4          | 70       | 130       |             |      |          |      |
| Methyl tert-butyl ether    | 0.0185           | 0.000500             | 0.02000     | 0                         | 92.6          | 70       | 130       |             |      |          |      |
| o-Chlorotoluene            | 0.0192           | 0.000500             | 0.02000     | 0                         | 96.0          | 70       | 130       |             |      |          |      |
| p-Chlorotoluene            | 0.0195           | 0.000500             | 0.02000     | 0                         | 97.6          | 70       | 130       |             |      |          |      |
| Surr: Dibromofluoromethane | 0.0387           |                      | 0.04000     |                           | 96.7          | 80       | 120       |             |      |          |      |
| Surr: Toluene-d8           | 0.0397           |                      | 0.04000     |                           | 99.2          | 80       | 120       |             |      |          |      |
| Surr: 4-Bromofluorobenzene | 0.0397           |                      | 0.04000     |                           | 99.3          | 80       | 120       |             |      |          |      |

|                                   |                         |                             |                    |                                  |                      |          |           |             |      |          |      |
|-----------------------------------|-------------------------|-----------------------------|--------------------|----------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MBLK</b>            | SampType: <b>MBLK</b>   | TestCode: <b>EPA524.2_D</b> | Units: <b>mg/L</b> | Prep Date:                       | RunNo: <b>17147</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>             | Batch ID: <b>R17147</b> | TestNo: <b>E524.2</b>       |                    | Analysis Date: <b>11/19/2020</b> | SeqNo: <b>247197</b> |          |           |             |      |          |      |
| Analyte                           | Result                  | PQL                         | SPK value          | SPK Ref Val                      | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| 1,1,1-Trichloroethane (1,1,1-TCA) | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level.  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit

C1 Sample container temperature is out of limit as specified at testcode  
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceed  
PL Permit Limit

Original



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# QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

|                            |                         |                             |                    |                                  |                      |          |           |             |      |          |      |
|----------------------------|-------------------------|-----------------------------|--------------------|----------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MBLK</b>     | SampleType: <b>MBLK</b> | TestCode: <b>EPA524.2_D</b> | Units: <b>mg/L</b> | Prep Date:                       | RunNo: <b>17147</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>      | Batch ID: <b>R17147</b> | TestNo: <b>E524.2</b>       |                    | Analysis Date: <b>11/19/2020</b> | SeqNo: <b>247197</b> |          |           |             |      |          |      |
| Analyte                    | Result                  | PQL                         | SPK value          | SPK Ref Val                      | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| 1,1,2-Trichloroethane      | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,1-Dichloroethylene       | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,2-Dichloroethane (EDC)   | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,2-Dichloropropane        | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Benzene                    | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Carbon tetrachloride       | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| cis-1,2-Dichloroethene     | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Dichloromethane            | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Ethylbenzene               | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Monochlorobenzene          | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| o-Dichlorobenzene          | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| p-Dichlorobenzene          | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Styrene                    | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Tetrachloroethene (PCE)    | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Toluene                    | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| trans-1,2-Dichloroethylene | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Trichloroethene (TCE)      | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Vinyl chloride             | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Xylenes, Total             | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,1,1,2-Tetrachloroethane  | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,1,2,2-Tetrachloroethane  | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,1-Dichloroethane         | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,1-Dichloropropene        | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,2,3-Trichloropropane     | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,3-Dichloropropane        | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,3-Dichloropropene        | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |

|                    |                                            |                                                            |                                                                           |    |                                                    |              |
|--------------------|--------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------------|----|----------------------------------------------------|--------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level. |                                                            | C.1 Sample container temperature is out of limit as specified at testcode |    | H Holding times for preparation or analysis exceed |              |
|                    | MI                                         | Recovery outside control limits due to Matrix Interference | ND                                                                        | ND | PL                                                 | Permit Limit |
|                    | RL                                         | Reporting Detection Limit                                  |                                                                           |    |                                                    |              |

Original



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# QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

|                        |                         |                             |                    |                                  |                      |          |           |             |      |          |      |
|------------------------|-------------------------|-----------------------------|--------------------|----------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MBLK</b> | SampleType: <b>MBLK</b> | TestCode: <b>EPA524.2_D</b> | Units: <b>mg/L</b> | Prep Date:                       | RunNo: <b>17147</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>  | Batch ID: <b>R17147</b> | TestNo: <b>E524.2</b>       |                    | Analysis Date: <b>11/19/2020</b> | SeqNo: <b>247197</b> |          |           |             |      |          |      |
| Analyte                | Result                  | PQL                         | SPK value          | SPK Ref Val                      | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|                            |        |          |         |  |      |    |  |     |  |  |  |
|----------------------------|--------|----------|---------|--|------|----|--|-----|--|--|--|
| 2,2-Dichloropropane        | ND     | 0.000500 |         |  |      |    |  |     |  |  |  |
| Bromobenzene               | ND     | 0.000500 |         |  |      |    |  |     |  |  |  |
| Bromodichloromethane       | ND     | 0.000500 |         |  |      |    |  |     |  |  |  |
| Bromoform                  | ND     | 0.000500 |         |  |      |    |  |     |  |  |  |
| Bromomethane               | ND     | 0.000500 |         |  |      |    |  |     |  |  |  |
| Chloroethane               | ND     | 0.000500 |         |  |      |    |  |     |  |  |  |
| Chloroform                 | ND     | 0.000500 |         |  |      |    |  |     |  |  |  |
| Chloromethane              | ND     | 0.000500 |         |  |      |    |  |     |  |  |  |
| Dibromochloromethane       | ND     | 0.000500 |         |  |      |    |  |     |  |  |  |
| Dibromomethane             | ND     | 0.000500 |         |  |      |    |  |     |  |  |  |
| m-Dichlorobenzene          | ND     | 0.000500 |         |  |      |    |  |     |  |  |  |
| Methyl tert-butyl ether    | ND     | 0.000500 |         |  |      |    |  |     |  |  |  |
| o-Chlorotoluene            | ND     | 0.000500 |         |  |      |    |  |     |  |  |  |
| p-Chlorotoluene            | ND     | 0.000500 |         |  |      |    |  |     |  |  |  |
| Surr: Dibromofluoromethane | 0.0393 |          | 0.04000 |  | 98.3 | 80 |  | 120 |  |  |  |
| Surr: Toluene-d8           | 0.0423 |          | 0.04000 |  | 106  | 80 |  | 120 |  |  |  |
| Surr: 4-Bromofluorobenzene | 0.0431 |          | 0.04000 |  | 108  | 80 |  | 120 |  |  |  |

|                           |                  |                      |             |                           |               |          |           |             |      |          |      |
|---------------------------|------------------|----------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 20110577-02AMS | SampleType: MS   | TestCode: EPA524.2_D | Units: mg/L | Prep Date:                | RunNo: 17147  |          |           |             |      |          |      |
| Client ID: BatchQC        | Batch ID: R17147 | TestNo: E524.2       |             | Analysis Date: 11/19/2020 | SeqNo: 247202 |          |           |             |      |          |      |
| Analyte                   | Result           | PQL                  | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|                                   |        |          |         |   |      |    |  |     |  |  |  |
|-----------------------------------|--------|----------|---------|---|------|----|--|-----|--|--|--|
| 1,1,1-Trichloroethane (1,1,1-TCA) | 0.0175 | 0.000500 | 0.02000 | 0 | 87.6 | 70 |  | 130 |  |  |  |
| 1,1,2-Trichloroethane             | 0.0160 | 0.000500 | 0.02000 | 0 | 79.9 | 70 |  | 130 |  |  |  |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. C1 Sample container temperature is out of limit as specified at testcode H Holding times for preparation or analysis exceed  
MI Recovery outside control limits due to Matrix Interference ND ND Not Detected at the Reporting Limit PL Permit Limit  
RL Reporting Detection Limit

Original



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# QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

| Sample ID: 20110577-02AMS  |                  | SampType: MS |          | TestCode: EPA524.2_D |             | Units: mg/L |          | Prep Date: |             | RunNo: 17147 |               |
|----------------------------|------------------|--------------|----------|----------------------|-------------|-------------|----------|------------|-------------|--------------|---------------|
| Client ID: BatchQC         | Batch ID: R17147 | Result       | PQL      | SPK value            | SPK Ref Val | %REC        | LowLimit | HighLimit  | RPD Ref Val | %RPD         | SeqNo: 247202 |
| Analyte                    |                  |              |          |                      |             |             |          |            |             |              |               |
| 1,1-Dichloroethylene       |                  | 0.0167       | 0.000500 | 0.02000              | 0           | 83.4        | 70       | 130        |             |              |               |
| 1,2-Dichloroethane (EDC)   |                  | 0.0166       | 0.000500 | 0.02000              | 0           | 82.8        | 70       | 130        |             |              |               |
| 1,2-Dichloropropane        |                  | 0.0169       | 0.000500 | 0.02000              | 0           | 84.4        | 70       | 130        |             |              |               |
| Benzene                    |                  | 0.0157       | 0.000500 | 0.02000              | 0           | 78.4        | 70       | 130        |             |              |               |
| Carbon tetrachloride       |                  | 0.0168       | 0.000500 | 0.02000              | 0           | 83.9        | 70       | 130        |             |              |               |
| cis-1,2-Dichloroethene     |                  | 0.0168       | 0.000500 | 0.02000              | 0           | 84.2        | 70       | 130        |             |              |               |
| Dichloromethane            |                  | 0.0143       | 0.000500 | 0.02000              | 0           | 71.6        | 70       | 130        |             |              |               |
| Ethylbenzene               |                  | 0.0173       | 0.000500 | 0.02000              | 0           | 86.5        | 70       | 130        |             |              |               |
| Monochlorobenzene          |                  | 0.0168       | 0.000500 | 0.02000              | 0           | 83.9        | 70       | 130        |             |              |               |
| o-Dichlorobenzene          |                  | 0.0164       | 0.000500 | 0.02000              | 0           | 81.8        | 70       | 130        |             |              |               |
| p-Dichlorobenzene          |                  | 0.0161       | 0.000500 | 0.02000              | 0           | 80.5        | 70       | 130        |             |              |               |
| Styrene                    |                  | 0.0169       | 0.000500 | 0.02000              | 0           | 84.7        | 70       | 130        |             |              |               |
| Tetrachloroethene (PCE)    |                  | 0.0156       | 0.000500 | 0.02000              | 0           | 77.9        | 70       | 130        |             |              |               |
| Toluene                    |                  | 0.0167       | 0.000500 | 0.02000              | 0           | 83.4        | 70       | 130        |             |              |               |
| trans-1,2-Dichloroethylene |                  | 0.0173       | 0.000500 | 0.02000              | 0           | 86.4        | 70       | 130        |             |              |               |
| Trichloroethene (TCE)      |                  | 0.0168       | 0.000500 | 0.02000              | 0           | 83.8        | 70       | 130        |             |              |               |
| Vinyl chloride             |                  | 0.0172       | 0.000500 | 0.02000              | 0           | 85.9        | 70       | 130        |             |              |               |
| Xylenes, Total             |                  | 0.0523       | 0.000500 | 0.06000              | 0           | 87.2        | 70       | 130        |             |              |               |
| 1,1,1,2-Tetrachloroethane  |                  | 0.0155       | 0.000500 | 0.02000              | 0           | 77.7        | 70       | 130        |             |              |               |
| 1,1,2,2-Tetrachloroethane  |                  | 0.0157       | 0.000500 | 0.02000              | 0           | 78.4        | 70       | 130        |             |              |               |
| 1,1-Dichloroethane         |                  | 0.0168       | 0.000500 | 0.02000              | 0           | 84.0        | 70       | 130        |             |              |               |
| 1,1-Dichloropropene        |                  | 0.0178       | 0.000500 | 0.02000              | 0           | 88.9        | 70       | 130        |             |              |               |
| 1,2,3-Trichloropropane     |                  | 0.0163       | 0.000500 | 0.02000              | 0           | 81.7        | 70       | 130        |             |              |               |
| 1,3-Dichloropropane        |                  | 0.0163       | 0.000500 | 0.02000              | 0           | 81.5        | 70       | 130        |             |              |               |
| 1,3-Dichloropropene        |                  | 0.0288       | 0.000500 | 0.04000              | 0           | 71.9        | 70       | 130        |             |              |               |
| 2,2-Dichloropropane        |                  | 0.0163       | 0.000500 | 0.02000              | 0           | 81.5        | 70       | 130        |             |              |               |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. H Holding times for preparation or analysis exceed  
MI Recovery outside control limits due to Matrix Interference PL Permit Limit  
RL Reporting Detection Limit ND Not Detected at the Reporting Limit

Original



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# QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

|                            |        |                  |           |                      |      |             |           |                           |      |               |      |
|----------------------------|--------|------------------|-----------|----------------------|------|-------------|-----------|---------------------------|------|---------------|------|
| Sample ID: 20110577-02AMS  |        | SampType: MS     |           | TestCode: EPA524.2_D |      | Units: mg/L |           | Prep Date:                |      | RunNo: 17147  |      |
| Client ID: BatchQC         |        | Batch ID: R17147 |           | TestNo: E524.2       |      |             |           | Analysis Date: 11/19/2020 |      | SeqNo: 247202 |      |
| Analyte                    | Result | PQL              | SPK value | SPK Ref Val          | %REC | LowLimit    | HighLimit | RPD Ref Val               | %RPD | RPDLimit      | Qual |
| Bromobenzene               | 0.0165 | 0.000500         | 0.02000   | 0                    | 82.3 | 70          | 130       |                           |      |               |      |
| Bromodichloromethane       | 0.0153 | 0.000500         | 0.02000   | 0                    | 76.4 | 70          | 130       |                           |      |               |      |
| Bromoform                  | 0.0116 | 0.000500         | 0.02000   | 0                    | 58.0 | 70          | 130       |                           |      |               | MI   |
| Bromomethane               | 0.0150 | 0.000500         | 0.02000   | 0                    | 75.0 | 70          | 130       |                           |      |               |      |
| Chloroethane               | 0.0161 | 0.000500         | 0.02000   | 0                    | 80.7 | 70          | 130       |                           |      |               |      |
| Chloroform                 | 0.0171 | 0.000500         | 0.02000   | 0                    | 85.3 | 70          | 130       |                           |      |               |      |
| Chloromethane              | 0.0161 | 0.000500         | 0.02000   | 0                    | 80.3 | 70          | 130       |                           |      |               |      |
| Dibromochloromethane       | 0.0133 | 0.000500         | 0.02000   | 0                    | 66.6 | 70          | 130       |                           |      |               | MI   |
| Dibromomethane             | 0.0165 | 0.000500         | 0.02000   | 0                    | 82.5 | 70          | 130       |                           |      |               |      |
| m-Dichlorobenzene          | 0.0165 | 0.000500         | 0.02000   | 0                    | 82.5 | 70          | 130       |                           |      |               |      |
| Methyl tert-butyl ether    | 0.0156 | 0.000500         | 0.02000   | 0                    | 77.8 | 70          | 130       |                           |      |               |      |
| o-Chlorotoluene            | 0.0171 | 0.000500         | 0.02000   | 0                    | 85.6 | 70          | 130       |                           |      |               |      |
| p-Chlorotluene             | 0.0173 | 0.000500         | 0.02000   | 0                    | 86.2 | 70          | 130       |                           |      |               |      |
| Surr: Dibromofluoromethane | 0.0434 |                  | 0.04000   |                      | 108  | 80          | 120       |                           |      |               |      |
| Surr: Toluene-d8           | 0.0434 |                  | 0.04000   |                      | 109  | 80          | 120       |                           |      |               |      |
| Surr: 4-Bromofluorobenzene | 0.0449 |                  | 0.04000   |                      | 112  | 80          | 120       |                           |      |               |      |

|                                   |                  |                      |             |                           |               |          |           |             |      |          |      |
|-----------------------------------|------------------|----------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 20110577-02AMSD        | SampType: MSD    | TestCode: EPA524.2_D | Units: mg/L | Prep Date:                | RunNo: 17147  |          |           |             |      |          |      |
| Client ID: BatchQC                | Batch ID: R17147 | TestNo: E524.2       |             | Analysis Date: 11/19/2020 | SeqNo: 247203 |          |           |             |      |          |      |
| Analyte                           | Result           | PQL                  | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| 1,1,1-Trichloroethane (1,1,1-TCA) | 0.0209           | 0.000500             | 0.02000     | 0                         | 104           | 70       | 130       | 0.01753     | 17.5 | 20       |      |
| 1,1,2-Trichloroethane             | 0.0184           | 0.000500             | 0.02000     | 0                         | 92.0          | 70       | 130       | 0.01598     | 14.1 | 20       |      |
| 1,1-Dichloroethylene              | 0.0196           | 0.000500             | 0.02000     | 0                         | 98.2          | 70       | 130       | 0.01667     | 16.4 | 20       |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. MI Recovery outside control limits due to Matrix Interference. RL Reporting Detection Limit. C1 Sample container temperature is out of limit as specified at testcode. ND Not Detected at the Reporting Limit. H Holding times for preparation or analysis exceed PL Permit Limit.

Original





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# QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

| Sample ID: 20110577-02AMSD |         |        | SampType: MSD |           | TestCode: EPA524.2_D |        | Units: mg/L |           | Prep Date:     |            |          | RunNo: 17147 |        |
|----------------------------|---------|--------|---------------|-----------|----------------------|--------|-------------|-----------|----------------|------------|----------|--------------|--------|
| Client ID:                 | BatchQC |        | Batch ID:     | R17147    | TestNo:              | E524.2 |             |           | Analysis Date: | 11/19/2020 |          | SeqNo:       | 247203 |
| Analyte                    |         | Result | PQL           | SPK value | SPK Ref Val          | %REC   | LowLimit    | HighLimit | RPD Ref Val    | %RPD       | RPDLimit | Qual         |        |
| 1,2-Dichloroethane (EDC)   |         | 0.0192 | 0.000500      | 0.02000   | 0                    | 96.0   | 70          | 130       | 0.01656        | 14.8       | 20       |              |        |
| 1,2-Dichloropropane        |         | 0.0197 | 0.000500      | 0.02000   | 0                    | 98.6   | 70          | 130       | 0.01687        | 15.6       | 20       |              |        |
| Benzene                    |         | 0.0186 | 0.000500      | 0.02000   | 0                    | 93.0   | 70          | 130       | 0.01568        | 17.0       | 20       |              |        |
| Carbon tetrachloride       |         | 0.0201 | 0.000500      | 0.02000   | 0                    | 101    | 70          | 130       | 0.01678        | 18.2       | 20       |              |        |
| cis-1,2-Dichloroethene     |         | 0.0199 | 0.000500      | 0.02000   | 0                    | 99.4   | 70          | 130       | 0.01683        | 16.7       | 20       |              |        |
| Dichloromethane            |         | 0.0173 | 0.000500      | 0.02000   | 0                    | 86.6   | 70          | 130       | 0.01431        | 19.0       | 20       |              |        |
| Ethylbenzene               |         | 0.0199 | 0.000500      | 0.02000   | 0                    | 99.3   | 70          | 130       | 0.01729        | 13.8       | 20       |              |        |
| Monochlorobenzene          |         | 0.0191 | 0.000500      | 0.02000   | 0                    | 95.4   | 70          | 130       | 0.01677        | 12.8       | 20       |              |        |
| o-Dichlorobenzene          |         | 0.0189 | 0.000500      | 0.02000   | 0                    | 94.4   | 70          | 130       | 0.01636        | 14.3       | 20       |              |        |
| p-Dichlorobenzene          |         | 0.0191 | 0.000500      | 0.02000   | 0                    | 95.7   | 70          | 130       | 0.01610        | 17.2       | 20       |              |        |
| Styrene                    |         | 0.0196 | 0.000500      | 0.02000   | 0                    | 98.0   | 70          | 130       | 0.01694        | 14.6       | 20       |              |        |
| Tetrachloroethene (PCE)    |         | 0.0183 | 0.000500      | 0.02000   | 0                    | 91.7   | 70          | 130       | 0.01558        | 16.3       | 20       |              |        |
| Toluene                    |         | 0.0200 | 0.000500      | 0.02000   | 0                    | 99.9   | 70          | 130       | 0.01668        | 18.0       | 20       |              |        |
| trans-1,2-Dichloroethylene |         | 0.0201 | 0.000500      | 0.02000   | 0                    | 100    | 70          | 130       | 0.01728        | 14.9       | 20       |              |        |
| Trichloroethene (TCE)      |         | 0.0198 | 0.000500      | 0.02000   | 0                    | 99.2   | 70          | 130       | 0.01676        | 16.8       | 20       |              |        |
| Vinyl chloride             |         | 0.0162 | 0.000500      | 0.02000   | 0                    | 81.0   | 70          | 130       | 0.01717        | 5.88       | 20       |              |        |
| Xylenes, Total             |         | 0.0601 | 0.000500      | 0.06000   | 0                    | 100    | 70          | 130       | 0.05234        | 13.8       | 20       |              |        |
| 1,1,1,2-Tetrachloroethane  |         | 0.0182 | 0.000500      | 0.02000   | 0                    | 91.2   | 70          | 130       | 0.01554        | 16.0       | 20       |              |        |
| 1,1,2,2-Tetrachloroethane  |         | 0.0183 | 0.000500      | 0.02000   | 0                    | 91.7   | 70          | 130       | 0.01567        | 15.7       | 20       |              |        |
| 1,1-Dichloroethane         |         | 0.0198 | 0.000500      | 0.02000   | 0                    | 98.9   | 70          | 130       | 0.01680        | 16.3       | 20       |              |        |
| 1,1-Dichloropropene        |         | 0.0210 | 0.000500      | 0.02000   | 0                    | 105    | 70          | 130       | 0.01777        | 16.7       | 20       |              |        |
| 1,2,3-Trichloropropane     |         | 0.0186 | 0.000500      | 0.02000   | 0                    | 93.0   | 70          | 130       | 0.01633        | 13.0       | 20       |              |        |
| 1,3-Dichloropropane        |         | 0.0189 | 0.000500      | 0.02000   | 0                    | 94.4   | 70          | 130       | 0.01630        | 14.7       | 20       |              |        |
| 1,3-Dichloropropene        |         | 0.0350 | 0.000500      | 0.04000   | 0                    | 87.5   | 70          | 130       | 0.02876        | 19.6       | 20       |              |        |
| 2,2-Dichloropropane        |         | 0.0194 | 0.000500      | 0.02000   | 0                    | 97.0   | 70          | 130       | 0.01630        | 17.4       | 20       |              |        |
| Bromobenzene               |         | 0.0193 | 0.000500      | 0.02000   | 0                    | 96.5   | 70          | 130       | 0.01646        | 15.9       | 20       |              |        |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit  
C1 Sample container temperature is out of limit as specified at testcode  
ND Not Detected at the Reporting Limit  
H Holding times for preparation or analysis exceed  
PL Permit Limit

Original



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# QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

|                            |        |                  |           |                      |      |             |           |                           |      |               |      |
|----------------------------|--------|------------------|-----------|----------------------|------|-------------|-----------|---------------------------|------|---------------|------|
| Sample ID: 20110577-02AMSD |        | SampType: MSD    |           | TestCode: EPA524.2_D |      | Units: mg/L |           | Prep Date:                |      | RunNo: 17147  |      |
| Client ID: BatchQC         |        | Batch ID: R17147 |           | TestNo: E524.2       |      |             |           | Analysis Date: 11/19/2020 |      | SeqNo: 247203 |      |
| Analyte                    | Result | PQL              | SPK value | SPK Ref Val          | %REC | LowLimit    | HighLimit | RPD Ref Val               | %RPD | RPDLimit      | Qual |
| Bromodichloromethane       | 0.0189 | 0.000500         | 0.02000   | 0                    | 94.7 | 70          | 130       | 0.01527                   | 21.4 | 20            | MI   |
| Bromoform                  | 0.0152 | 0.000500         | 0.02000   | 0                    | 75.9 | 70          | 130       | 0.01160                   | 26.7 | 20            | MI   |
| Bromomethane               | 0.0176 | 0.000500         | 0.02000   | 0                    | 87.8 | 70          | 130       | 0.01500                   | 15.7 | 20            |      |
| Chloroethane               | 0.0158 | 0.000500         | 0.02000   | 0                    | 79.2 | 70          | 130       | 0.01613                   | 1.75 | 20            |      |
| Chloroform                 | 0.0199 | 0.000500         | 0.02000   | 0                    | 99.3 | 70          | 130       | 0.01706                   | 15.1 | 20            |      |
| Chloromethane              | 0.0151 | 0.000500         | 0.02000   | 0                    | 75.6 | 70          | 130       | 0.01606                   | 6.03 | 20            |      |
| Dibromochloromethane       | 0.0162 | 0.000500         | 0.02000   | 0                    | 80.9 | 70          | 130       | 0.01332                   | 19.4 | 20            |      |
| Dibromomethane             | 0.0188 | 0.000500         | 0.02000   | 0                    | 93.8 | 70          | 130       | 0.01649                   | 12.9 | 20            |      |
| m-Dichlorobenzene          | 0.0192 | 0.000500         | 0.02000   | 0                    | 95.8 | 70          | 130       | 0.01650                   | 14.9 | 20            |      |
| Methyl tert-butyl ether    | 0.0180 | 0.000500         | 0.02000   | 0                    | 90.0 | 70          | 130       | 0.01555                   | 14.6 | 20            |      |
| o-Chlorotoluene            | 0.0205 | 0.000500         | 0.02000   | 0                    | 103  | 70          | 130       | 0.01711                   | 18.1 | 20            |      |
| p-Chlorotoluene            | 0.0202 | 0.000500         | 0.02000   | 0                    | 101  | 70          | 130       | 0.01725                   | 16.0 | 20            |      |
| Surr: Dibromofluoromethane | 0.0443 |                  | 0.04000   |                      | 111  | 80          | 120       |                           | 0    | 0             |      |
| Surr: Toluene-d8           | 0.0441 |                  | 0.04000   |                      | 110  | 80          | 120       |                           | 0    | 0             |      |
| Surr: 4-Bromofluorobenzene | 0.0448 |                  | 0.04000   |                      | 112  | 80          | 120       |                           | 0    | 0             |      |

|                            |                         |                             |                    |                                  |                      |          |           |             |      |          |      |
|----------------------------|-------------------------|-----------------------------|--------------------|----------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MBLK</b>     | SampleType: <b>MBLK</b> | TestCode: <b>EPA524.2_D</b> | Units: <b>mg/L</b> | Prep Date:                       | RunNo: <b>17297</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>      | Batch ID: <b>R17297</b> | TestNo: <b>E524.2</b>       |                    | Analysis Date: <b>11/24/2020</b> | SeqNo: <b>249652</b> |          |           |             |      |          |      |
| Analyte                    | Result                  | PQL                         | SPK value          | SPK Ref Val                      | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| 1,2,4-Trichlorobenzene     | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Surr: Dibromofluoromethane | 0.0446                  |                             | 0.04000            |                                  | 111                  | 80       | 120       |             |      |          |      |
| Surr: Toluene-d8           | 0.0438                  |                             | 0.04000            |                                  | 109                  | 80       | 120       |             |      |          |      |
| Surr: 4-Bromofluorobenzene | 0.0432                  |                             | 0.04000            |                                  | 108                  | 80       | 120       |             |      |          |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level.  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit

C1 Sample container temperature is out of limit as specified at testcode  
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceed  
PL Permit Limit

Original



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## QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

|                        |                         |                             |                    |                                  |                      |          |           |             |      |          |      |
|------------------------|-------------------------|-----------------------------|--------------------|----------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MBLK</b> | SampleType: <b>MBLK</b> | TestCode: <b>EPA524.2_D</b> | Units: <b>mg/L</b> | Prep Date:                       | RunNo: <b>17297</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>  | Batch ID: <b>R17297</b> | TestNo: <b>E524.2</b>       |                    | Analysis Date: <b>11/24/2020</b> | SeqNo: <b>249652</b> |          |           |             |      |          |      |
| Analyte                | Result                  | PQL                         | SPK value          | SPK Ref Val                      | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|                            |        |                  |                      |             |                           |            |               |              |      |          |      |
|----------------------------|--------|------------------|----------------------|-------------|---------------------------|------------|---------------|--------------|------|----------|------|
| Sample ID: 20110917-01AMS  |        | SampleType: MS   | TestCode: EPA524.2_D |             | Units: mg/L               | Prep Date: |               | RunNo: 17297 |      |          |      |
| Client ID: BatchQC         |        | Batch ID: R17297 | TestNo: E524.2       |             | Analysis Date: 11/24/2020 |            | SeqNo: 249659 |              |      |          |      |
| Analyte                    | Result | PQL              | SPK value            | SPK Ref Val | %REC                      | LowLimit   | HighLimit     | RPD Ref Val  | %RPD | RPDLimit | Qual |
| 1,2,4-Trichlorobenzene     | 0.0257 | 0.000500         | 0.02000              | 0           | 129                       | 70         | 130           |              |      |          |      |
| Surr: Toluene-d8           | 0.0450 |                  | 0.04000              |             | 112                       | 80         | 120           |              |      |          |      |
| Surr: 4-Bromofluorobenzene | 0.0429 |                  | 0.04000              |             | 107                       | 80         | 120           |              |      |          |      |

|                            |                  |                      |             |                           |               |          |           |             |      |          |      |
|----------------------------|------------------|----------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 20110917-01AMSD | Sample Type: MSD | TestCode: EPA524.2_D | Units: mg/L | Prep Date:                | RunNo: 17297  |          |           |             |      |          |      |
| Client ID: BatchQC         | Batch ID: R17297 | TestNo: E524.2       |             | Analysis Date: 11/24/2020 | SeqNo: 249660 |          |           |             |      |          |      |
| Analyte                    | Result           | PQL                  | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| 1,2,4-Trichlorobenzene     | 0.0253           | 0.000500             | 0.02000     | 0                         | 127           | 70       | 130       | 0.02574     | 1.68 | 20       |      |
| Surr: Dibromofluoromethane | 0.0470           |                      | 0.04000     |                           | 117           | 80       | 120       |             | 0    | 0        |      |
| Surr: Toluene-d8           | 0.0436           |                      | 0.04000     |                           | 109           | 80       | 120       |             | 0    | 0        |      |
| Surr: 4-Bromofluorobenzene | 0.0415           |                      | 0.04000     |                           | 104           | 80       | 120       |             | 0    | 0        |      |

|                        |                         |                             |                    |                                  |                      |          |           |             |      |          |      |
|------------------------|-------------------------|-----------------------------|--------------------|----------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>LCS</b>  | SampleType: <b>LCS</b>  | TestCode: <b>EPA524.2_D</b> | Units: <b>mg/L</b> | Prep Date:                       | RunNo: <b>17297</b>  |          |           |             |      |          |      |
| Client ID: <b>LCSW</b> | Batch ID: <b>R17297</b> | TestNo: <b>E524.2</b>       |                    | Analysis Date: <b>11/24/2020</b> | SeqNo: <b>249662</b> |          |           |             |      |          |      |
| Analyte                | Result                  | PQL                         | SPK value          | SPK Ref Val                      | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. MI Recovery outside control limits due to Matrix Interference. ND Sample container temperature is out of limit as specified at testcode. C1 Not Detected at the Reporting Limit. H Holding times for preparation or analysis exceed. RL Reporting Detection Limit. PL Permit Limit.

Original



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## QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

|                            |                  |                      |             |                           |                                                        |
|----------------------------|------------------|----------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: LCS             | Sample Type: LCS | TestCode: EPA524.2_D | Units: mg/L | Prep Date:                | RunNo: 17297                                           |
| Client ID: LCSW            | Batch ID: R17297 | TestNo: E524.2       |             | Analysis Date: 11/24/2020 | SeqNo: 249662                                          |
| Analyte                    | Result           | PQL                  | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| 1,2,4-Trichlorobenzene     | 0.0296           | 0.000500             | 0.02000     | 0                         | 148 70 130 SQ                                          |
| Surr: Dibromofluoromethane | 0.0463           |                      | 0.04000     |                           | 116 80 120                                             |
| Surr: Toluene-d8           | 0.0438           |                      | 0.04000     |                           | 110 80 120                                             |
| Surr: 4-Bromofluorobenzene | 0.0428           |                      | 0.04000     |                           | 107 80 120                                             |

|                            |                   |                      |             |                           |                                                        |
|----------------------------|-------------------|----------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: MBLK            | Sample Type: MBLK | TestCode: EPA524.2_D | Units: mg/L | Prep Date:                | RunNo: 17297                                           |
| Client ID: PBW             | Batch ID: R17297  | TestNo: E524.2       |             | Analysis Date: 11/25/2020 | SeqNo: 250578                                          |
| Analyte                    | Result            | PQL                  | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| 1,2,4-Trichlorobenzene     | ND                | 0.000500             |             |                           |                                                        |
| Surr: Dibromofluoromethane | 0.0380            |                      | 0.04000     |                           | 95.1 80 120                                            |
| Surr: Toluene-d8           | 0.0415            |                      | 0.04000     |                           | 104 80 120                                             |
| Surr: 4-Bromofluorobenzene | 0.0449            |                      | 0.04000     |                           | 112 80 120                                             |

|                            |                  |                      |             |                           |                                                        |
|----------------------------|------------------|----------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20110917-01AMS  | Sample Type: MS  | TestCode: EPA524.2_D | Units: %Rec | Prep Date:                | RunNo: 17297                                           |
| Client ID: BatchQC         | Batch ID: R17297 | TestNo: E524.2       |             | Analysis Date: 11/25/2020 | SeqNo: 250579                                          |
| Analyte                    | Result           | PQL                  | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Surr: Dibromofluoromethane | 0.0422           |                      | 0.04000     |                           | 105 80 120                                             |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level.  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit

C1 Sample container temperature is out of limit as specified at testcode  
ND Not Detected at the Reporting Limit  
H Holding times for preparation or analysis exceed  
PL Permit Limit

Original



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# QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** HG\_DW

|                    |                |                 |             |                           |                                                        |
|--------------------|----------------|-----------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: MB-8796 | SampType: MBLK | TestCode: HG_DW | Units: mg/L | Prep Date: 11/20/2020     | RunNo: 17246                                           |
| Client ID: PBW     | Batch ID: 8796 | TestNo: E245.1  | E245.1      | Analysis Date: 11/23/2020 | SeqNo: 248802                                          |
| Analyte            | Result         | PQL             | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Mercury            | ND             | 0.000200        |             |                           |                                                        |

|                     |                |                 |             |                           |                                                        |
|---------------------|----------------|-----------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: LCS-8796 | SampType: LCS  | TestCode: HG_DW | Units: mg/L | Prep Date: 11/20/2020     | RunNo: 17246                                           |
| Client ID: LCSW     | Batch ID: 8796 | TestNo: E245.1  | E245.1      | Analysis Date: 11/23/2020 | SeqNo: 248803                                          |
| Analyte             | Result         | PQL             | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Mercury             | 0.00551        | 0.000200        | 0.005000    | 0                         | 110 85 115                                             |

|                           |                |                 |             |                           |                                                        |
|---------------------------|----------------|-----------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20110920-01AMS | SampType: MS   | TestCode: HG_DW | Units: mg/L | Prep Date: 11/20/2020     | RunNo: 17246                                           |
| Client ID: BatchQC        | Batch ID: 8796 | TestNo: E245.1  | E245.1      | Analysis Date: 11/23/2020 | SeqNo: 248807                                          |
| Analyte                   | Result         | PQL             | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Mercury                   | 0.00526        | 0.000200        | 0.005000    | 0                         | 105 75 125                                             |

|                            |                |                 |             |                           |                                                        |
|----------------------------|----------------|-----------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20110920-01AMSD | SampType: MSD  | TestCode: HG_DW | Units: mg/L | Prep Date: 11/20/2020     | RunNo: 17246                                           |
| Client ID: BatchQC         | Batch ID: 8796 | TestNo: E245.1  | E245.1      | Analysis Date: 11/23/2020 | SeqNo: 248808                                          |
| Analyte                    | Result         | PQL             | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Mercury                    | 0.00548        | 0.000200        | 0.005000    | 0                         | 110 75 125 0.005260 4.10 20                            |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. C1 Sample container temperature is out of limit as specified at testcode H Holding times for preparation or analysis exceed  
MI Recovery outside control limits due to Matrix Interference ND Not Detected at the Reporting Limit PL Permit Limit  
RL Reporting Detection Limit

Original



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# QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** PAH\_W

|                    |                  |                 |             |                           |               |          |           |             |      |          |      |
|--------------------|------------------|-----------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: MB-8746 | SampleType: MBLK | TestCode: PAH_W | Units: µg/L | Prep Date: 11/18/2020     | RunNo: 17223  |          |           |             |      |          |      |
| Client ID: PBW     | Batch ID: 8746   | TestNo: SW8270C | SW8270      | Analysis Date: 11/19/2020 | SeqNo: 248396 |          |           |             |      |          |      |
| Analyte            | Result           | PQL             | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|                        |      |       |       |  |      |    |     |  |  |  |   |
|------------------------|------|-------|-------|--|------|----|-----|--|--|--|---|
| Acenaphthene           | ND   | 0.500 |       |  |      |    |     |  |  |  |   |
| Acenaphthylene         | ND   | 0.500 |       |  |      |    |     |  |  |  |   |
| Anthracene             | ND   | 0.500 |       |  |      |    |     |  |  |  |   |
| Benzo(a)anthracene     | ND   | 0.500 |       |  |      |    |     |  |  |  |   |
| Benzo(a)pyrene         | ND   | 0.500 |       |  |      |    |     |  |  |  |   |
| Benzo(b)fluoranthene   | ND   | 0.500 |       |  |      |    |     |  |  |  |   |
| Benzo(g,h,i)perylene   | ND   | 0.500 |       |  |      |    |     |  |  |  |   |
| Benzo(k)fluoranthene   | ND   | 0.500 |       |  |      |    |     |  |  |  |   |
| Chrysene               | ND   | 0.500 |       |  |      |    |     |  |  |  |   |
| Dibenz(a,h)anthracene  | ND   | 1.00  |       |  |      |    |     |  |  |  |   |
| Fluoranthene           | ND   | 0.500 |       |  |      |    |     |  |  |  |   |
| Fluorene               | ND   | 0.500 |       |  |      |    |     |  |  |  |   |
| Indeno(1,2,3-cd)pyrene | ND   | 0.500 |       |  |      |    |     |  |  |  |   |
| Naphthalene            | ND   | 0.500 |       |  |      |    |     |  |  |  |   |
| Phenanthrene           | ND   | 0.500 |       |  |      |    |     |  |  |  |   |
| Pyrene                 | ND   | 0.500 |       |  |      |    |     |  |  |  |   |
| Surr: 2-Fluorobiphenyl | 17.9 |       | 20.00 |  | 89.3 | 63 | 110 |  |  |  | S |
| Surr: 4-Terphenyl-d14  | 22.8 |       | 20.00 |  | 114  | 68 | 110 |  |  |  |   |

|                     |                 |                 |             |                           |               |          |           |             |      |          |      |
|---------------------|-----------------|-----------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: LCS-8746 | SampleType: LCS | TestCode: PAH_W | Units: µg/L | Prep Date: 11/18/2020     | RunNo: 17223  |          |           |             |      |          |      |
| Client ID: LCSW     | Batch ID: 8746  | TestNo: SW8270C | SW8270      | Analysis Date: 11/19/2020 | SeqNo: 248397 |          |           |             |      |          |      |
| Analyte             | Result          | PQL             | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|              |      |       |       |   |      |    |     |  |  |  |  |
|--------------|------|-------|-------|---|------|----|-----|--|--|--|--|
| Acenaphthene | 8.88 | 0.500 | 10.00 | 0 | 88.8 | 55 | 115 |  |  |  |  |
|--------------|------|-------|-------|---|------|----|-----|--|--|--|--|

**Qualifiers:** \* Value exceeds Maximum Contaminant Level.  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit

C1 Sample container temperature is out of limit as specified at testcode  
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceed  
PL Permit Limit

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## QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** PAH\_W

| Sample ID: LCS-8746    |        | SampType: LCS  |           | TestCode: PAH_W |      | Units: µg/L |           | Prep Date: 11/18/2020     |      | RunNo: 17223  |      |
|------------------------|--------|----------------|-----------|-----------------|------|-------------|-----------|---------------------------|------|---------------|------|
| Client ID: LCSW        |        | Batch ID: 8746 |           | TestNo: SW8270C |      | SW8270      |           | Analysis Date: 11/19/2020 |      | SeqNo: 248397 |      |
| Analyte                | Result | PQL            | SPK value | SPK Ref Val     | %REC | LowLimit    | HighLimit | RPD Ref Val               | %RPD | RPDLimit      | Qual |
| Acenaphthylene         | 9.10   | 0.500          | 10.00     | 0               | 91.0 | 50          | 120       |                           |      |               |      |
| Anthracene             | 9.16   | 0.500          | 10.00     | 0               | 91.6 | 70          | 120       |                           |      |               |      |
| Benzo(a)anthracene     | 9.09   | 0.500          | 10.00     | 0               | 90.9 | 70          | 125       |                           |      |               |      |
| Benzo(a)pyrene         | 8.72   | 0.500          | 10.00     | 0               | 87.2 | 70          | 130       |                           |      |               |      |
| Benzo(b)fluoranthene   | 9.62   | 0.500          | 10.00     | 0               | 96.2 | 70          | 125       |                           |      |               |      |
| Benzo(g,h,i)perylene   | 8.66   | 0.500          | 10.00     | 0               | 86.6 | 70          | 130       |                           |      |               |      |
| Benzo(k)fluoranthene   | 9.63   | 0.500          | 10.00     | 0               | 96.3 | 70          | 130       |                           |      |               |      |
| Chrysene               | 9.34   | 0.500          | 10.00     | 0               | 93.4 | 70          | 120       |                           |      |               |      |
| Dibenz(a,h)anthracene  | 9.17   | 1.00           | 10.00     | 0               | 91.7 | 70          | 130       |                           |      |               |      |
| Fluoranthene           | 9.45   | 0.500          | 10.00     | 0               | 94.5 | 70          | 125       |                           |      |               |      |
| Fluorene               | 9.33   | 0.500          | 10.00     | 0               | 93.3 | 65          | 125       |                           |      |               |      |
| Indeno(1,2,3-cd)pyrene | 8.80   | 0.500          | 10.00     | 0               | 88.0 | 70          | 130       |                           |      |               |      |
| Naphthalene            | 7.65   | 0.500          | 10.00     | 0               | 76.5 | 60          | 130       |                           |      |               |      |
| Phenanthrene           | 8.84   | 0.500          | 10.00     | 0               | 88.4 | 70          | 125       |                           |      |               |      |
| Pyrene                 | 9.45   | 0.500          | 10.00     | 0               | 94.5 | 70          | 130       |                           |      |               |      |
| Surr: 2-Fluorobiphenyl | 17.7   |                | 20.00     |                 | 88.4 | 63          | 110       |                           |      |               |      |
| Surr: 4-Terphenyl-d14  | 20.4   |                | 20.00     |                 | 102  | 68          | 110       |                           |      |               |      |

|                               |                |                 |             |                           |               |          |           |             |      |          |      |
|-------------------------------|----------------|-----------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 20110721-01MMS     | SampType: MS   | TestCode: PAH_W | Units: µg/L | Prep Date: 11/18/2020     | RunNo: 17223  |          |           |             |      |          |      |
| Client ID: Bear Creek Greenwa | Batch ID: 8746 | TestNo: SW8270C | SW8270      | Analysis Date: 11/19/2020 | SeqNo: 248398 |          |           |             |      |          |      |
| Analyte                       | Result         | PQL             | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Acenaphthene                  | 7.82           | 0.500           | 10.00       | 0                         | 78.2          | 55       | 115       |             |      |          |      |
| Acenaphthylene                | 8.29           | 0.500           | 10.00       | 0                         | 82.9          | 50       | 120       |             |      |          |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. MI Recovery outside control limits due to Matrix Interference. RL Reporting Detection Limit. C1 Sample container temperature is out of limit as specified at testcode. ND Not Detected at the Reporting Limit. H Holding times for preparation or analysis exceed PL Permit Limit.

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# QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** PAH\_W

|                               |                |                 |             |                           |               |          |           |             |      |          |      |
|-------------------------------|----------------|-----------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 20110721-01MMS     | SampType: MS   | TestCode: PAH_W | Units: µg/L | Prep Date: 11/18/2020     | RunNo: 17223  |          |           |             |      |          |      |
| Client ID: Bear Creek Greenwa | Batch ID: 8746 | TestNo: SW8270C | SW8270      | Analysis Date: 11/19/2020 | SeqNo: 248398 |          |           |             |      |          |      |
| Analyte                       | Result         | PQL             | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Anthracene                    | 9.08           | 0.500           | 10.00       | 0                         | 90.8          | 70       | 120       |             |      |          |      |
| Benzo(a)anthracene            | 9.90           | 0.500           | 10.00       | 0                         | 99.0          | 70       | 125       |             |      |          |      |
| Benzo(a)pyrene                | 9.19           | 0.500           | 10.00       | 0                         | 91.9          | 70       | 130       |             |      |          |      |
| Benzo(b)fluoranthene          | 10.0           | 0.500           | 10.00       | 0                         | 100           | 70       | 125       |             |      |          |      |
| Benzo(g,h,i)perylene          | 8.83           | 0.500           | 10.00       | 0                         | 88.3          | 70       | 130       |             |      |          |      |
| Benzo(k)fluoranthene          | 8.71           | 0.500           | 10.00       | 0                         | 87.1          | 70       | 130       |             |      |          |      |
| Chrysene                      | 9.15           | 0.500           | 10.00       | 0                         | 91.5          | 70       | 120       |             |      |          |      |
| Dibenz(a,h)anthracene         | 9.28           | 1.00            | 10.00       | 0                         | 92.8          | 70       | 130       |             |      |          |      |
| Fluoranthene                  | 9.43           | 0.500           | 10.00       | 0                         | 94.3          | 70       | 125       |             |      |          |      |
| Fluorene                      | 8.70           | 0.500           | 10.00       | 0                         | 87.0          | 65       | 125       |             |      |          |      |
| Indeno(1,2,3-cd)pyrene        | 9.08           | 0.500           | 10.00       | 0                         | 90.8          | 70       | 130       |             |      |          |      |
| Naphthalene                   | 6.97           | 0.500           | 10.00       | 0                         | 69.7          | 60       | 130       |             |      |          |      |
| Phenanthrene                  | 8.28           | 0.500           | 10.00       | 0                         | 82.8          | 70       | 125       |             |      |          |      |
| Pyrene                        | 9.65           | 0.500           | 10.00       | 0                         | 96.5          | 70       | 130       |             |      |          |      |
| Surr: 2-Fluorobiphenyl        | 15.7           |                 | 20.00       |                           | 78.5          | 63       | 110       |             |      |          |      |
| Surr: 4-Terphenyl-d14         | 20.0           |                 | 20.00       |                           | 100           | 68       | 110       |             |      |          |      |

|                               |                |                 |             |                           |               |          |           |             |       |          |      |
|-------------------------------|----------------|-----------------|-------------|---------------------------|---------------|----------|-----------|-------------|-------|----------|------|
| Sample ID: 20110721-01MMSD    | SampType: MSD  | TestCode: PAH_W | Units: µg/L | Prep Date: 11/18/2020     | RunNo: 17223  |          |           |             |       |          |      |
| Client ID: Bear Creek Greenwa | Batch ID: 8746 | TestNo: SW8270C | SW8270      | Analysis Date: 11/19/2020 | SeqNo: 248399 |          |           |             |       |          |      |
| Analyte                       | Result         | PQL             | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD  | RPDLimit | Qual |
| Acenaphthene                  | 8.22           | 0.500           | 10.00       | 0                         | 82.2          | 55       | 115       | 7.820       | 4.99  | 25       |      |
| Acenaphthylene                | 8.59           | 0.500           | 10.00       | 0                         | 85.9          | 50       | 120       | 8.290       | 3.55  | 25       |      |
| Anthracene                    | 9.04           | 0.500           | 10.00       | 0                         | 90.4          | 70       | 120       | 9.080       | 0.442 | 25       |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. MI Recovery outside control limits due to Matrix Interference RL Reporting Detection Limit C1 Sample container temperature is out of limit as specified at testcode ND Not Detected at the Reporting Limit H Holding times for preparation or analysis exceed PL Permit Limit

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## QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** PAH\_W

| Sample ID: 20110721-01MMSD    |        | SampType: MSD  |           | TestCode: PAH_W |      | Units: µg/L |           | Prep Date: 11/18/2020     |       | RunNo: 17223  |      |
|-------------------------------|--------|----------------|-----------|-----------------|------|-------------|-----------|---------------------------|-------|---------------|------|
| Client ID: Bear Creek Greenwa |        | Batch ID: 8746 |           | TestNo: SW8270C |      | SW8270      |           | Analysis Date: 11/19/2020 |       | SeqNo: 248399 |      |
| Analyte                       | Result | PQL            | SPK value | SPK Ref Val     | %REC | LowLimit    | HighLimit | RPD Ref Val               | %RPD  | RPDLimit      | Qual |
| Benzo(a)anthracene            | 10.0   | 0.500          | 10.00     | 0               | 100  | 70          | 125       | 9.900                     | 1.10  | 25            |      |
| Benzo(a)pyrene                | 9.28   | 0.500          | 10.00     | 0               | 92.8 | 70          | 130       | 9.190                     | 0.975 | 25            |      |
| Benzo(b)fluoranthene          | 9.67   | 0.500          | 10.00     | 0               | 96.7 | 70          | 125       | 10.03                     | 3.65  | 25            |      |
| Benzo(g,h,i)perylene          | 8.80   | 0.500          | 10.00     | 0               | 88.0 | 70          | 130       | 8.830                     | 0.340 | 25            |      |
| Benzo(k)fluoranthene          | 9.24   | 0.500          | 10.00     | 0               | 92.4 | 70          | 130       | 8.710                     | 5.91  | 25            |      |
| Chrysene                      | 9.05   | 0.500          | 10.00     | 0               | 90.5 | 70          | 120       | 9.150                     | 1.10  | 25            |      |
| Dibenz(a,h)anthracene         | 9.19   | 1.00           | 10.00     | 0               | 91.9 | 70          | 130       | 9.280                     | 0.975 | 25            |      |
| Fluoranthene                  | 9.95   | 0.500          | 10.00     | 0               | 99.5 | 70          | 125       | 9.430                     | 5.37  | 25            |      |
| Fluorene                      | 8.96   | 0.500          | 10.00     | 0               | 89.6 | 65          | 125       | 8.700                     | 2.94  | 25            |      |
| Indeno(1,2,3-cd)pyrene        | 9.04   | 0.500          | 10.00     | 0               | 90.4 | 70          | 130       | 9.080                     | 0.442 | 25            |      |
| Naphthalene                   | 7.18   | 0.500          | 10.00     | 0               | 71.8 | 60          | 130       | 6.970                     | 2.97  | 25            |      |
| Phenanthrene                  | 8.49   | 0.500          | 10.00     | 0               | 84.9 | 70          | 125       | 8.280                     | 2.50  | 25            |      |
| Pyrene                        | 9.99   | 0.500          | 10.00     | 0               | 99.9 | 70          | 130       | 9.650                     | 3.46  | 25            |      |
| Surr: 2-Fluorobiphenyl        | 16.6   |                | 20.00     |                 | 82.9 | 63          | 110       |                           | 0     | 0             |      |
| Surr: 4-Terphenyl-d14         | 19.9   |                | 20.00     |                 | 99.5 | 68          | 110       |                           | 0     | 0             |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. MI Recovery outside control limits due to Matrix Interference RL Reporting Detection Limit C1 Sample container temperature is out of limit as specified at testcode ND Not Detected at the Reporting Limit H Holding times for preparation or analysis exceed PL Permit Limit

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## QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** PHOS-T\_W

|                          |                |                    |             |                           |                                                        |
|--------------------------|----------------|--------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: LCS-8728      | SampType: LCS  | TestCode: PHOS-T_W | Units: mg/L | Prep Date: 11/17/2020     | RunNo: 17145                                           |
| Client ID: LCSW          | Batch ID: 8728 | TestNo: A4500-P-E  | A4500-P-E   | Analysis Date: 11/17/2020 | SeqNo: 247011                                          |
| Analyte                  | Result         | PQL                | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Phosphorus, Total (As P) | 0.635          | 0.0250             | 0.6000      | 0                         | 106 80 120                                             |

|                          |                |                    |             |                           |                                                        |
|--------------------------|----------------|--------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: MB-8728       | SampType: MBLK | TestCode: PHOS-T_W | Units: mg/L | Prep Date: 11/17/2020     | RunNo: 17145                                           |
| Client ID: PBW           | Batch ID: 8728 | TestNo: A4500-P-E  | A4500-P-E   | Analysis Date: 11/17/2020 | SeqNo: 247012                                          |
| Analyte                  | Result         | PQL                | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Phosphorus, Total (As P) | ND             | 0.0250             |             |                           |                                                        |

|                           |                |                    |             |                           |                                                        |
|---------------------------|----------------|--------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20110567-02BMS | SampType: MS   | TestCode: PHOS-T_W | Units: mg/L | Prep Date: 11/17/2020     | RunNo: 17145                                           |
| Client ID: BatchQC        | Batch ID: 8728 | TestNo: A4500-P-E  | A4500-P-E   | Analysis Date: 11/17/2020 | SeqNo: 247014                                          |
| Analyte                   | Result         | PQL                | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Phosphorus, Total (As P)  | 2.30           | 0.125              | 1.000       | 1.280                     | 102 80 120                                             |

|                            |                |                    |             |                           |                                                        |
|----------------------------|----------------|--------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20110567-02BMSD | SampType: MSD  | TestCode: PHOS-T_W | Units: mg/L | Prep Date: 11/17/2020     | RunNo: 17145                                           |
| Client ID: BatchQC         | Batch ID: 8728 | TestNo: A4500-P-E  | A4500-P-E   | Analysis Date: 11/17/2020 | SeqNo: 247015                                          |
| Analyte                    | Result         | PQL                | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Phosphorus, Total (As P)   | 2.22           | 0.125              | 1.000       | 1.280                     | 93.6 80 120 2.297 3.58 15                              |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. C1 Sample container temperature is out of limit as specified at testcode H Holding times for preparation or analysis exceed  
MI Recovery outside control limits due to Matrix Interference ND Not Detected at the Reporting Limit PL Permit Limit  
RL Reporting Detection Limit

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## QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** SOLIDS\_TSS\_W

|                        |                |                      |             |                           |                                                        |
|------------------------|----------------|----------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: MB-8752     | SampType: MBLK | TestCode: SOLIDS_TSS | Units: mg/L | Prep Date: 11/18/2020     | RunNo: 17213                                           |
| Client ID: PBW         | Batch ID: 8752 | TestNo: A2540D       |             | Analysis Date: 11/18/2020 | SeqNo: 248250                                          |
| Analyte                | Result         | PQL                  | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Total Suspended Solids | ND             | 1.00                 |             |                           |                                                        |

|                        |                |                      |             |                           |                                                        |
|------------------------|----------------|----------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: LCS-8752    | SampType: LCS  | TestCode: SOLIDS_TSS | Units: mg/L | Prep Date: 11/18/2020     | RunNo: 17213                                           |
| Client ID: LCSW        | Batch ID: 8752 | TestNo: A2540D       |             | Analysis Date: 11/18/2020 | SeqNo: 248251                                          |
| Analyte                | Result         | PQL                  | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Total Suspended Solids | 880            | 40.0                 | 1000        | 0                         | 88.0 80 120                                            |

|                            |                |                      |             |                           |                                                        |
|----------------------------|----------------|----------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20110705-01ADUP | SampType: DUP  | TestCode: SOLIDS_TSS | Units: mg/L | Prep Date: 11/18/2020     | RunNo: 17213                                           |
| Client ID: BatchQC         | Batch ID: 8752 | TestNo: A2540D       |             | Analysis Date: 11/18/2020 | SeqNo: 248253                                          |
| Analyte                    | Result         | PQL                  | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Total Suspended Solids     | 37.0           | 4.00                 |             | 40.00                     | 7.79 5 MI                                              |

|                            |                |                      |             |                           |                                                        |
|----------------------------|----------------|----------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20110773-01BDUP | SampType: DUP  | TestCode: SOLIDS_TSS | Units: mg/L | Prep Date: 11/18/2020     | RunNo: 17213                                           |
| Client ID: BatchQC         | Batch ID: 8752 | TestNo: A2540D       |             | Analysis Date: 11/18/2020 | SeqNo: 248264                                          |
| Analyte                    | Result         | PQL                  | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Total Suspended Solids     | ND             | 2.00                 |             | 2.000                     | 200 5 R4                                               |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. H Holding times for preparation or analysis exceed  
MI Recovery outside control limits due to Matrix Interference PL Permit Limit  
RL Reporting Detection Limit ND Not Detected at the Reporting Limit

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# QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** TKN\_W

|                           |                |                 |             |                           |                                                        |
|---------------------------|----------------|-----------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: MB-8775        | SampType: MBLK | TestCode: TKN_W | Units: mg/L | Prep Date: 11/19/2020     | RunNo: 17214                                           |
| Client ID: PBW            | Batch ID: 8775 | TestNo: E351.2  | E351.1      | Analysis Date: 11/20/2020 | SeqNo: 248281                                          |
| Analyte                   | Result         | PQL             | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Nitrogen, Kjeldahl, Total | ND             | 0.625           |             |                           |                                                        |

|                           |                |                 |             |                           |                                                        |
|---------------------------|----------------|-----------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: LCS-8775       | SampType: LCS  | TestCode: TKN_W | Units: mg/L | Prep Date: 11/19/2020     | RunNo: 17214                                           |
| Client ID: LCSW           | Batch ID: 8775 | TestNo: E351.2  | E351.1      | Analysis Date: 11/20/2020 | SeqNo: 248283                                          |
| Analyte                   | Result         | PQL             | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Nitrogen, Kjeldahl, Total | 4.73           | 0.625           | 5.000       | 0                         | 94.6 90 110                                            |

|                           |                |                 |             |                           |                                                        |
|---------------------------|----------------|-----------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20110526-01AMS | SampType: MS   | TestCode: TKN_W | Units: mg/L | Prep Date: 11/19/2020     | RunNo: 17214                                           |
| Client ID: BatchQC        | Batch ID: 8775 | TestNo: E351.2  | E351.1      | Analysis Date: 11/20/2020 | SeqNo: 248285                                          |
| Analyte                   | Result         | PQL             | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Nitrogen, Kjeldahl, Total | 44.9           | 3.12            | 25.00       | 19.55                     | 101 80 120                                             |

|                            |                |                 |             |                           |                                                        |
|----------------------------|----------------|-----------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20110526-01AMSD | SampType: MSD  | TestCode: TKN_W | Units: mg/L | Prep Date: 11/19/2020     | RunNo: 17214                                           |
| Client ID: BatchQC         | Batch ID: 8775 | TestNo: E351.2  | E351.1      | Analysis Date: 11/20/2020 | SeqNo: 248286                                          |
| Analyte                    | Result         | PQL             | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Nitrogen, Kjeldahl, Total  | 42.6           | 3.12            | 25.00       | 19.55                     | 92.2 80 120 44.90 5.26 20                              |

|                    |                                                               |    |                                                                       |    |                                                  |
|--------------------|---------------------------------------------------------------|----|-----------------------------------------------------------------------|----|--------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.                    | C1 | Sample container temperature is out of limit as specified at testcode | H  | Holding times for preparation or analysis exceed |
|                    | MI Recovery outside control limits due to Matrix Interference | ND | Not Detected at the Reporting Limit                                   | PL | Permit Limit                                     |
|                    | RL Reporting Detection Limit                                  |    |                                                                       |    |                                                  |

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## QC SUMMARY REPORT

WO#: 20110721  
11-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** TOC\_5310C

|                 |                  |                     |             |                           |               |          |           |             |      |          |      |
|-----------------|------------------|---------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: LCS  | SampType: LCS    | TestCode: TOC_5310C | Units: mg/L | Prep Date:                | RunNo: 17228  |          |           |             |      |          |      |
| Client ID: LCSW | Batch ID: R17228 | TestNo: A5310C      |             | Analysis Date: 11/20/2020 | SeqNo: 248501 |          |           |             |      |          |      |
| Analyte         | Result           | PQL                 | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|                        |                         |                            |                    |                                  |                      |          |           |             |      |          |      |
|------------------------|-------------------------|----------------------------|--------------------|----------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MBLK</b> | SampType: <b>MBLK</b>   | TestCode: <b>TOC_5310C</b> | Units: <b>mg/L</b> | Prep Date:                       | RunNo: <b>17228</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>  | Batch ID: <b>R17228</b> | TestNo: <b>A5310C</b>      |                    | Analysis Date: <b>11/20/2020</b> | SeqNo: <b>248502</b> |          |           |             |      |          |      |
| Analyte                | Result                  | PQL                        | SPK value          | SPK Ref Val                      | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Organic Carbon, Total  | ND                      | 0.100                      |                    |                                  |                      |          |           |             |      |          |      |

|                           |  |                  |  |                     |           |             |      |                           |           |               |      |          |      |
|---------------------------|--|------------------|--|---------------------|-----------|-------------|------|---------------------------|-----------|---------------|------|----------|------|
| Sample ID: 20110926-01DMS |  | SampType: MS     |  | TestCode: TOC_5310C |           | Units: mg/L |      | Prep Date:                |           | RunNo: 17228  |      |          |      |
| Client ID: BatchQC        |  | Batch ID: R17228 |  | TestNo: A5310C      |           |             |      | Analysis Date: 11/24/2020 |           | SeqNo: 249747 |      |          |      |
| Analyte                   |  | Result           |  | PQL                 | SPK value | SPK Ref Val | %REC | LowLimit                  | HighLimit | RPD Ref Val   | %RPD | RPDLimit | Qual |
| Organic Carbon, Total     |  | 30.3             |  | 1.00                | 25.00     | 4.769       | 102  | 80                        | 120       |               |      |          |      |

|                            |                  |                     |             |                           |               |          |           |             |      |          |      |
|----------------------------|------------------|---------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 20110926-01DMSD | SampType: MSD    | TestCode: TOC_5310C | Units: mg/L | Prep Date:                | RunNo: 17228  |          |           |             |      |          |      |
| Client ID: BatchQC         | Batch ID: R17228 | TestNo: A5310C      |             | Analysis Date: 11/24/2020 | SeqNo: 249748 |          |           |             |      |          |      |
| Analyte                    | Result           | PQL                 | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Organic Carbon, Total      | 29.1             | 1.00                | 25.00       | 4.769                     | 97.1          | 80       | 120       | 30.31       | 4.24 | 25       |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. MI Recovery outside control limits due to Matrix Interference. RL Reporting Detection Limit. C1 Sample container temperature is out of limit as specified at testcode. ND Not Detected at the Reporting Limit. H Holding times for preparation or analysis exceed PL Permit Limit.

Original



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## Sample Log-In Check List

Client Name: **GrantsPassWF**

Work Order Number: **20110721**

RcptNo: **1**

Logged by: **Sarah Spence** **11/16/2020 11:47:00 AM**

Completed By: **Sara Stephens** **11/16/2020 3:09:46 PM**

Reviewed By: **Tamra Schmedemann** **12/18/2020 8:52:31 PM**

*Sarah Spence*  
*Sara Stephens*  
*Tamra Schmedemann*

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐  
4. Shipping container/cooler in good condition? Yes ☒ No ☐  
Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒  
No. Seal Date: Signed By:  
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
6. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐

### Samples were collected the same day and chilled.

7. Sample(s) in proper container(s)? Yes ☒ No ☐  
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐  
10. Was preservative added to bottles? Yes ☒ No ☐ NA ☐  
HNO<sub>3</sub> pH<2  
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☒  
12. Were any sample containers received broken? Yes ☐ No ☒  
13. Does paperwork match bottle labels? Yes ☒ No ☐  
(Note discrepancies on chain of custody)  
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
15. Is it clear what analyses were requested? Yes ☒ No ☐  
16. Were all holding times able to be met? Yes ☐ No ☒  
(If no, notify customer for authorization.)

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

|                      |                      |       |                                                                                                                               |
|----------------------|----------------------|-------|-------------------------------------------------------------------------------------------------------------------------------|
| Person Notified:     | <input type="text"/> | Date: | <input type="text"/>                                                                                                          |
| By Whom:             | <input type="text"/> | Via:  | <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person |
| Regarding:           | <input type="text"/> |       |                                                                                                                               |
| Client Instructions: | <input type="text"/> |       |                                                                                                                               |

18. Additional remarks:

### Cooler Information

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1         | 3.1     | Good      |             |         |           | TRS       |

## EPA 100.1 - Asbestos in Water (all sizes) Final Report

**Job Number:** 201341

**Client:** Neilson Research Corp  
**Address:** 245 S Grape St  
Medford, OR 97501

**Project Name:**

**Project No.:**

**PO Number:** 1293

**PWS ID:**

**Reference No.:**

**Report Number:** 201341R01

**Report Date:** 11/20/2020

Enclosed please find results for samples submitted to our laboratory. A list of samples and analyses follows:

| Lab/Cor Sample # | Client Sample # and Description                                      | Analysis                                     | Analysis Notes | Date Received: |
|------------------|----------------------------------------------------------------------|----------------------------------------------|----------------|----------------|
| 201341 - S1      | 20110721-01J - Bear Creek<br>Greenway Bridge, WA Water ID#: 11924028 | EPA 100.1 - Asbestos in<br>Water (all sizes) |                | 11/17/2020     |

EPA 100.1 - Asbestos in Water (all sizes) Preparation and analysis of the above samples was conducted in accordance with the EPA method #100.1. In this method, samples are taken from an affected water supply to measure the amount of asbestos contamination in the system. Samples with known organic interferences are treated with ozone/UV treatment to oxidize any suspended material in the water.

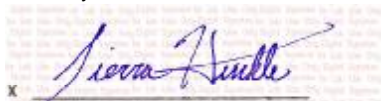
Each sample was shaken, then sonicated briefly in a Health Sonics Ultrasonic Cleaner to distribute particulate evenly. Several aliquots were filtered onto 0.1 µm, 25 mm mixed cellulose ester filters. Briefly, the samples were collapsed with a solution of N,N-dimethylformamide and acetic acid and if no ozone/UV treatment was applied, they were etched in a low temperature plasma etcher to remove the top surface of the filter and other organics. Then the samples were coated at high vacuum with a thin layer of carbon. This coated sample was then placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Each aliquot was examined at low magnification to determine the best particulate loading for analysis. Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification of 20,000x, with an accelerating voltage of 100 KV, scanning for fibers > 0.5µm in length. At least twenty grid openings were analyzed (or 100 structures) over three grid preparations. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**Disclaimer** The results reported relate only to the samples tested or analyzed; the laboratory is not responsible for data collected by personnel who are not affiliated with the laboratory. Results reported in both structures/cm3 and structures/mm2 are dependent on the sample volume and area. These parameters are measured and recorded by non-laboratory personnel and are not covered by the laboratory's accreditation. Interpretation of these results is the sole responsibility of the client.

If further clarification of these results is needed, please call us. Thank you for allowing the staff at Lab/Cor, Inc. the opportunity to provide you with the analytical services.

Sincerely,



**Sierra Hinkle**  
Technician/Analyst

## EPA 100.1 - Asbestos in Water (all sizes) Summary Data - Final Report

Job Number: 201341      SEA  
Client: Neilson Research Corp

Report Number: 201341R01

Project Name:

Date Received: 11/17/2020

|                                                                 |                                            |
|-----------------------------------------------------------------|--------------------------------------------|
| Lab/Cor Sample No.: S1                                          | Sample Area/Mass/Volume (ml) : 800         |
| Client Sample No.: 20110721-01J                                 | Lab Filter Area (mm2) : 201                |
| Description: Bear Creek Greenway Bridge, WA Water ID#: 11924028 | Grid Openings Analyzed : 20                |
| Filter Fraction: 1      Aliquot Dilution: 1                     | Average Grid Opening Area : 0.011          |
| Begin Volume: 0.1 ml      Final Dilution: 1                     | Area Analyzed (mm2) : 0.22                 |
| Volume Taken: 0.1 ml                                            | Analytical Sens. (struc/MFL>10-um) : 9.136 |

|            |               |                |               |
|------------|---------------|----------------|---------------|
| Analyst(s) | Analysis Date | Microscope     | Magnification |
| SH         | 11/20/2020    | Hitachi 7000FA | 10000         |

| Structure Type                     | Concentration MFL>10-um | 95% Confidence Interval MFL>10-um | Structure Count <sup>1</sup> Prim/Total |
|------------------------------------|-------------------------|-----------------------------------|-----------------------------------------|
| TEM Water Amphibole - 100.1 Rules  | < 9.136                 | 0 - 33.704 - Poisson              | 0                                       |
| TEM Water Chrysotile - 100.1 Rules | < 9.136                 | 0 - 33.704 - Poisson              | 0                                       |
| TEM Water Total - 100.1 Rules      | < 9.136                 | 0 - 33.704 - Poisson              | 0                                       |
| TEM Water >10µm Asbestos Length    | < 9.136                 | 0 - 33.704 - Poisson              | 0                                       |

Reviewed by:

  
Sierra Hinkle  
Technician/Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



## EPA 100.1 - Asbestos in Water (all sizes) Raw Data - Final Report

Job Number: 201341      SEA  
Client: Neilson Research Corp

EPA 100.1 Non Potable

Report Number: 201341R01

Date Received: 11/17/2020

Project Name:

Project No.:

Lab/Cor Sample No: S1

Client Sample No: 20110721-01J

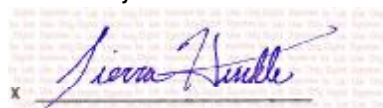
Description: Bear Creek Greenway Bridge, WA Water ID#: 11924028

| Gr | No. | Loc. | ID | Prim | Tot | Class | Length | Width | Aspect | Analyte | Elements | Comment | Count Categories |
|----|-----|------|----|------|-----|-------|--------|-------|--------|---------|----------|---------|------------------|
| G7 | 1   | C31  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G7 | 2   | C32  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G7 | 3   | E31  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G7 | 4   | E32  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G7 | 5   | F31  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G7 | 6   | F32  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G7 | 7   | G31  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G7 | 8   | G32  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G7 | 9   | H31  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G7 | 10  | H32  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G8 | 11  | C41  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G8 | 12  | C42  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G8 | 13  | E41  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G8 | 14  | E42  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G8 | 15  | F41  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G9 | 16  | F33  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G9 | 17  | F34  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G9 | 18  | G33  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G9 | 19  | G34  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G9 | 20  | H33  |    |      |     | NSD   |        |       |        |         |          |         |                  |

### Count Categories

|           |                                   |           |                                    |          |                               |
|-----------|-----------------------------------|-----------|------------------------------------|----------|-------------------------------|
| 100_1Amph | TEM Water Amphibole - 100.1 Rules | 100_1Chry | TEM Water Chrysotile - 100.1 Rules | 100_1Tot | TEM Water Total - 100.1 Rules |
| Asb>10    | TEM Water >10µm Asbestos Length   |           |                                    |          |                               |

Reviewed by:



Sierra Hinkle  
Technician/Analyst



908 North Temperance Ave. ▽ Clovis, CA 93611 ▽ Phone 559-275-2175 ▽ Fax 559-275-4422

NELAP Certification Number: CA00046 (HW)  
State Certification Number: CA1312 (WW & DW)

December 23, 2020

Neilson Research Corporation  
245 S. Grape St.  
Medford, Oregon 97501

Attn: Tamra Schmedemann

Subject: Report of Data: Case 94191

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Dear Ms. Schmedemann,

Two water samples were received on November 20, 2020. Written results are being provided on this December 23, 2020, for the requested analysis. All holding times were met.

For the PFAS analysis, the sample was extracted according to APPL SOP PRE537 and analyzed according to APPL SOP ANA537 and DoD QSM Table B-15. Some samples and quality control recovered outside control limit for some extracted internal standards.

For the EPA 1613 analysis, the sample was extracted according to the method.

If you have any questions or require further information, please contact us at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.

Paula McCartney, Laboratory Director  
APPL, Inc.

PM/lac  
Enclosure  
cc: File

## PFAS IN WATER

Neilson Research Corporation  
245 S. Grape St.  
Medford, OR 97501

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: NRC Labs

Project: 20110920

Sample ID: 20110721-01K

Sample Collection Date: 11/15/20

ARF: 94191

APPL ID: BA22131

QCG: #PFASC-201125B1-259462

| Method | Analyte                    | Result       | PQL    | MDL  | Units | Extraction Date | Analysis Date |
|--------|----------------------------|--------------|--------|------|-------|-----------------|---------------|
| B-15   | 11-CL-PF3OUDS              | Not detected | 8.0    | 1.20 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | 9-CL-PF3ONS                | Not detected | 8.0    | 1.18 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | ADONA                      | Not detected | 8.0    | 1.30 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | FTS 4:2                    | Not detected | 8.0    | 0.54 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | FTS 6:2                    | Not detected | 8.0    | 0.45 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | FTS 8:2                    | Not detected | 8.0    | 1.01 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | HFPO-DA                    | Not detected | 8.0    | 2.45 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | N-ETFOSA                   | Not detected | 8.0    | 3.00 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | N-ETFOSAA                  | Not detected | 8.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | N-ETFOSE                   | Not detected | 8.0    | 3.00 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | N-MEFOSA                   | Not detected | 8.0    | 3.00 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | N-MEFOSAA                  | Not detected | 8.0    | 0.36 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | N-MEFOSE                   | Not detected | 8.0    | 3.00 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | PFBA                       | Not detected | 8.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | PFBS                       | 5.0          | 5.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | PFDA                       | 0.88 J       | 5.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | PFDOA                      | Not detected | 5.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | PFDS                       | Not detected | 5.0    | 0.32 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | PFHPA                      | 1.3 J        | 5.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | PFHPS                      | Not detected | 5.0    | 0.28 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | PFHXA                      | 5.6          | 5.0    | 0.32 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | PFHXS                      | Not detected | 5.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | PFNA                       | Not detected | 5.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | PFNS                       | Not detected | 8.0    | 0.40 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | PFOA                       | 3.8 J        | 5.0    | 0.41 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | PFOS                       | 5.3          | 5.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | PFOSA                      | Not detected | 8.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | PFPEA                      | 12           | 5.0    | 0.31 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | PFPEs                      | Not detected | 5.0    | 0.29 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | PFTEDA                     | Not detected | 8.0    | 0.43 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | PFTRDA                     | Not detected | 5.0    | 0.29 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | PFUDA                      | Not detected | 5.0    | 0.40 | ng/L  | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: 13C2-4:2FTS (S) | 161 #        | 50-150 |      | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: 13C2-6:2FTS (S) | 172 #        | 50-150 |      | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: 13C2-8:2FTS (S) | 131          | 50-150 |      | %     | 11/25/20        | 12/10/20      |

J = Estimated value.

# = Recovery (or RPD) is outside QC limits.

Quant Method: B15\2020\_12\_01  
Run #: 2020-12-0944  
Instrument: Saphira  
Sequence: 2020-12-25B  
Dilution Factor: 1  
Initials: HHE

Printed: 12/10/20 12:33:35 PM  
APPL-F1-SC-NoMC-REG MDLs

## PFAS IN WATER

Neilson Research Corporation  
245 S. Grape St.  
Medford, OR 97501

Attn: NRC Labs

Project: 20110920

**Sample ID: 20110721-01K**

Sample Collection Date: 11/15/20

APPL Inc.

908 North Temperance Avenue  
Clovis, CA 93611

ARF: 94191

**APPL ID: BA22131**

QCG: #PFASC-201125B1-259462

| Method | Analyte                      | Result | PQL    | MDL | Units | Extraction Date | Analysis Date |
|--------|------------------------------|--------|--------|-----|-------|-----------------|---------------|
| B-15   | SURROGATE: 13C2-PFDOA (S)    | 111    | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: 13C2-PFTEDA (S)   | 116    | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: 13C2D4-6:2FTS (S) | 198 #  | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: 13C3-HFPO-DA (S)  | 113    | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: 13C3-PFBS (S)     | 116    | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: 13C3-PFHXS (S)    | 135    | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: 13C4-PFBA (S)     | 82.0   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: 13C4-PFHFA (S)    | 125    | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: 13C5-PFHXA (S)    | 101    | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: 13C5-PFPEA (S)    | 99.4   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: 13C6-PFDA (S)     | 112    | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: 13C7-PFUDA (S)    | 107    | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: 13C8-PFOA (S)     | 113    | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: 13C8-PFOS (S)     | 122    | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: 13C8-PFOSA (S)    | 119    | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: 13C9-PFNA (S)     | 114    | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: D3-MEFOSA (S)     | 83.2   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: D3-NMEFOSAA (S)   | 87.3   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: D5-ETFOSA (S)     | 71.6   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: D5-NETFOSAA (S)   | 93.0   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: D7-MEFOSE (S)     | 96.8   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| B-15   | SURROGATE: D9-ETFOSE (S)     | 105    | 50-150 |     | %     | 11/25/20        | 12/10/20      |

J = Estimated value.

# = Recovery (or RPD) is outside QC limits.

Quant Method: B15\2020\_12\_01  
Run #: 2020-12-0944  
Instrument: Saphira  
Sequence: 2020-12-25B  
Dilution Factor: 1  
Initials: HHE

Printed: 12/10/20 12:33:35 PM  
APPL-F1-SC-NoMC-REG MDLs

## EPA 1613B DIOXINS FURANS LOW LEV

Neilson Research Corporation  
245 S. Grape St.  
Medford, OR 97501

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: NRC Labs

Project: 20110920

Sample ID: 20110721-01G

Sample Collection Date: 11/15/20

ARF: 94191

APPL ID: BA22130

QCG: \$1613LL-201203A-259258

| Method   | Analyte                                | Result | PQL    | EDL/EMPC | Units | Ext Date | Analysis Date |
|----------|----------------------------------------|--------|--------|----------|-------|----------|---------------|
| EPA 1613 | 1,2,3,4,6,7,8-HPCDD                    | 6.3 U  | 25.0   | 6.3PC    | pg/L  | 12/03/20 | 12/04/20      |
| EPA 1613 | 1,2,3,4,6,7,8-HPCDF                    | 2.2 U  | 25.0   | 2.2DL    | pg/L  | 12/03/20 | 12/04/20      |
| EPA 1613 | 1,2,3,4,7,8,9-HPCDF                    | 3.7 U  | 25.0   | 3.7DL    | pg/L  | 12/03/20 | 12/04/20      |
| EPA 1613 | 1,2,3,4,7,8-HXCDD                      | 1.4 U  | 25.0   | 1.4DL    | pg/L  | 12/03/20 | 12/04/20      |
| EPA 1613 | 1,2,3,4,7,8-HXCDF                      | 1.1 U  | 25.0   | 1.1PC    | pg/L  | 12/03/20 | 12/04/20      |
| EPA 1613 | 1,2,3,6,7,8-HXCDD                      | 0.88 U | 25.0   | 0.88PC   | pg/L  | 12/03/20 | 12/04/20      |
| EPA 1613 | 1,2,3,6,7,8-HXCDF                      | 1.5 U  | 25.0   | 1.5PC    | pg/L  | 12/03/20 | 12/04/20      |
| EPA 1613 | 1,2,3,7,8,9-HXCDD                      | 1.2 U  | 25.0   | 1.2DL    | pg/L  | 12/03/20 | 12/04/20      |
| EPA 1613 | 1,2,3,7,8,9-HXCDF                      | 1.9 U  | 25.0   | 1.9DL    | pg/L  | 12/03/20 | 12/04/20      |
| EPA 1613 | 1,2,3,7,8-PECDD                        | 0.83 U | 25.0   | 0.83DL   | pg/L  | 12/03/20 | 12/04/20      |
| EPA 1613 | 1,2,3,7,8-PECDF                        | 2.0 U  | 25.0   | 2.0DL    | pg/L  | 12/03/20 | 12/04/20      |
| EPA 1613 | 2,3,4,6,7,8-HXCDF                      | 1.5 U  | 25.0   | 1.5DL    | pg/L  | 12/03/20 | 12/04/20      |
| EPA 1613 | 2,3,4,7,8-PECDF                        | 2.2 U  | 25.0   | 2.2DL    | pg/L  | 12/03/20 | 12/04/20      |
| EPA 1613 | 2,3,7,8-TCDD                           | 1.4 U  | 5.0    | 1.4PC    | pg/L  | 12/03/20 | 12/04/20      |
| EPA 1613 | 2,3,7,8-TCDF                           | 1.5 U  | 5.0    | 1.5DL    | pg/L  | 12/03/20 | 12/04/20      |
| EPA 1613 | OCDD                                   | 56     | 50.0   | 56PC     | pg/L  | 12/03/20 | 12/04/20      |
| EPA 1613 | OCDF                                   | 10 U   | 50.0   | 10PC     | pg/L  | 12/03/20 | 12/04/20      |
| EPA 1613 | TEQ                                    | 0.017  | NA     |          |       | 12/03/20 | 12/04/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,4,6,7,8-HPCDD (S) | 50.0   | 26-166 |          | %     | 12/03/20 | 12/04/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,4,6,7,8-HPCDF (S) | 52.6   | 21-158 |          | %     | 12/03/20 | 12/04/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,4,7,8,9-HPCDF (S) | 50.5   | 20-186 |          | %     | 12/03/20 | 12/04/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,4,7,8-HXCDD (S)   | 49.7   | 21-193 |          | %     | 12/03/20 | 12/04/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,4,7,8-HXCDF (S)   | 57.7   | 19-202 |          | %     | 12/03/20 | 12/04/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,6,7,8-HXCDD (S)   | 53.4   | 25-163 |          | %     | 12/03/20 | 12/04/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,6,7,8-HXCDF (S)   | 48.4   | 21-159 |          | %     | 12/03/20 | 12/04/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,7,8,9-HXCDF (S)   | 46.9   | 17-205 |          | %     | 12/03/20 | 12/04/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,7,8-PECDD (S)     | 37.6   | 21-227 |          | %     | 12/03/20 | 12/04/20      |
| EPA 1613 | SURROGATE: 13C-1,2,3,7,8-PECDF (S)     | 39.4   | 21-192 |          | %     | 12/03/20 | 12/04/20      |
| EPA 1613 | SURROGATE: 13C-2,3,4,6,7,8-HXCDF (S)   | 48.7   | 22-176 |          | %     | 12/03/20 | 12/04/20      |
| EPA 1613 | SURROGATE: 13C-2,3,4,7,8-PECDF (S)     | 36.5   | 13-328 |          | %     | 12/03/20 | 12/04/20      |
| EPA 1613 | SURROGATE: 13C-2,3,7,8-TCDD (S)        | 40.7   | 20-175 |          | %     | 12/03/20 | 12/04/20      |
| EPA 1613 | SURROGATE: 13C-2,3,7,8-TCDF (S)        | 38.4   | 22-152 |          | %     | 12/03/20 | 12/04/20      |
| EPA 1613 | SURROGATE: 13C-OCDD (S)                | 45.3   | 13-199 |          | %     | 12/03/20 | 12/04/20      |

Quant Method: 201115\_1613  
Run #: 201202\_HR\_39  
Instrument: Magneto  
Sequence: 201202  
Dilution Factor: 1  
Initials: RP

Printed: 12/04/20 10:44:40 AM  
Form 1 - APPL Standard GC - No MC

## Method Blank PFAS IN WATER

Blank Name/QCG: 201125W-22021 - 259462  
Batch ID: #PFASC-201125B1

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

| Sample Type | Analyte                    | Result       | PQL    | MDL  | Units | Extraction Date | Analysis Date |
|-------------|----------------------------|--------------|--------|------|-------|-----------------|---------------|
| BLANK       | 11-CL-PF3OUDS              | Not detected | 8.0    | 1.20 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | 9-CL-PF3ONS                | Not detected | 8.0    | 1.18 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | ADONA                      | Not detected | 8.0    | 1.30 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | FTS 4:2                    | Not detected | 8.0    | 0.54 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | FTS 6:2                    | Not detected | 8.0    | 0.45 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | FTS 8:2                    | Not detected | 8.0    | 1.01 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | HFPO-DA                    | Not detected | 8.0    | 2.45 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | N-ETFOSA                   | Not detected | 8.0    | 3.00 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | N-ETFOSAA                  | Not detected | 8.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | N-ETFOSE                   | Not detected | 8.0    | 3.00 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | N-MEFOSA                   | Not detected | 8.0    | 3.00 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | N-MEFOSAA                  | Not detected | 8.0    | 0.36 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | N-MEFOSE                   | Not detected | 8.0    | 3.00 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | PFBA                       | Not detected | 8.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | PFBS                       | Not detected | 5.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | PFDA                       | Not detected | 5.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | PFDOA                      | Not detected | 5.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | PFDS                       | Not detected | 5.0    | 0.32 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | PFHPA                      | Not detected | 5.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | PFHPS                      | Not detected | 5.0    | 0.28 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | PFHXA                      | Not detected | 5.0    | 0.32 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | PFHXS                      | Not detected | 5.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | PFNA                       | Not detected | 5.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | PFNS                       | Not detected | 8.0    | 0.40 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | PFOA                       | Not detected | 5.0    | 0.41 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | PFOS                       | Not detected | 5.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | PFOSA                      | Not detected | 8.0    | 0.25 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | PFPEA                      | Not detected | 5.0    | 0.31 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | PFPEs                      | Not detected | 5.0    | 0.29 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | PFTEDA                     | Not detected | 8.0    | 0.43 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | PFTRDA                     | Not detected | 5.0    | 0.29 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | PFUDA                      | Not detected | 5.0    | 0.40 | ng/L  | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: 13C2-4:2FTS (S) | 96.5         | 50-150 |      | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: 13C2-6:2FTS (S) | 100          | 50-150 |      | %     | 11/25/20        | 12/10/20      |

# = Recovery (or RPD) is outside QC limits.

Quant Method: B15\2020\_12  
Run #: 2020-12-092  
Instrument: Saphira  
Sequence: 2020-12-25B  
Initials: HHE

GC SC-Blank-REG MDLs  
Printed: 12/10/20 12:33:35 PM

## Method Blank PFAS IN WATER

Blank Name/QCG: 201125W-22021 - 259462  
Batch ID: #PFASC-201125B1

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

| Sample Type | Analyte                      | Result | PQL    | MDL | Units | Extraction Date | Analysis Date |
|-------------|------------------------------|--------|--------|-----|-------|-----------------|---------------|
| BLANK       | SURROGATE: 13C2-8:2FTS (S)   | 91.9   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: 13C2-PFDOA (S)    | 88.5   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: 13C2-PFTEDA (S)   | 95.8   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: 13C2D4-6:2FTS (S) | 104    | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: 13C3-HFPO-DA (S)  | 102    | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: 13C3-PFBS (S)     | 99.6   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: 13C3-PFHXS (S)    | 96.6   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: 13C4-PFBA (S)     | 102    | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: 13C4-PFHFA (S)    | 104    | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: 13C5-PFHXA (S)    | 99.6   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: 13C5-PFPEA (S)    | 99.3   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: 13C6-PFDA (S)     | 97.5   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: 13C7-PFUDA (S)    | 96.5   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: 13C8-PFOA (S)     | 101    | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: 13C8-PFOS (S)     | 97.9   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: 13C8-PFOSA (S)    | 94.5   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: 13C9-PFNA (S)     | 97.8   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: D3-MEFOSA (S)     | 63.8   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: D3-NMEFOSAA (S)   | 79.4   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: D5-ETFOSA (S)     | 47.9 # | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: D5-NETFOSAA (S)   | 80.4   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: D7-MEFOSE (S)     | 82.0   | 50-150 |     | %     | 11/25/20        | 12/10/20      |
| BLANK       | SURROGATE: D9-ETFOSE (S)     | 76.5   | 50-150 |     | %     | 11/25/20        | 12/10/20      |

# = Recovery (or RPD) is outside QC limits.

Quant Method: B15\2020\_12  
Run #: 2020-12-092  
Instrument: Saphira  
Sequence: 2020-12-25B  
Initials: HHE

GC SC-Blank-REG MDLs  
Printed: 12/10/20 12:33:35 PM

# Laboratory Control Spike Recoveries

## PFAS IN WATER

APPL ID: 201125W-22021 LCS - 259462

Batch ID: #PFASC-201125B1

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

| Compound Name | Spike Lvl<br>ng/L | SPK Result<br>ng/L | DUP Result<br>ng/L | SPK %<br>Recovery | DUP %<br>Recovery | Recovery<br>Limits | RPD<br>% | RPD<br>Limits |
|---------------|-------------------|--------------------|--------------------|-------------------|-------------------|--------------------|----------|---------------|
| 11-CL-PF3OUDS | 47.2              | 48.7               | 50.4               | 103               | 107               | 54-138             | 3.4      | 30            |
| 9-CL-PF3ONS   | 46.7              | 42.1               | 44.9               | 90.2              | 96.2              | 62-140             | 6.4      | 30            |
| ADONA         | 47.3              | 42.5               | 41.1               | 89.9              | 87.0              | 61-169             | 3.3      | 30            |
| FTS 4:2       | 46.7              | 44.3               | 45.6               | 94.8              | 97.6              | 63-143             | 2.9      | 30            |
| FTS 6:2       | 47.5              | 43.9               | 40.3               | 92.5              | 84.9              | 64-140             | 8.6      | 30            |
| FTS 8:2       | 47.9              | 49.6               | 45.4               | 104               | 94.8              | 67-138             | 8.8      | 30            |
| HFPO-DA       | 50.0              | 42.2               | 39.6               | 84.4              | 79.2              | 44-175             | 6.4      | 30            |
| N-ETFOSA      | 50.0              | 46.5               | 42.3               | 93.0              | 84.6              | 76-137             | 9.5      | 30            |
| N-ETFOSAA     | 50.0              | 51.4               | 51.2               | 103               | 102               | 61-135             | 0.39     | 30            |
| N-ETFOSE      | 50.0              | 40.8               | 46.6               | 81.6              | 93.2              | 39-150             | 13.3     | 30            |
| N-MEFOSA      | 50.0              | 52.1               | 43.7               | 104               | 87.4              | 68-141             | 17.5     | 30            |
| N-MEFOSAA     | 50.0              | 50.8               | 46.8               | 102               | 93.6              | 65-136             | 8.2      | 30            |
| N-MEFOSE      | 50.0              | 48.8               | 43.8               | 97.6              | 87.6              | 68-144             | 10.8     | 30            |
| PFBA          | 50.0              | 46.8               | 50.1               | 93.6              | 100               | 73-129             | 6.8      | 30            |
| PFBS          | 44.2              | 40.7               | 43.2               | 92.0              | 97.7              | 72-130             | 6.0      | 30            |
| PFDA          | 50.0              | 46.7               | 48.8               | 93.4              | 97.6              | 71-129             | 4.4      | 30            |
| PFDOA         | 50.0              | 47.7               | 44.0               | 95.4              | 88.0              | 72-134             | 8.1      | 30            |
| PFDS          | 48.2              | 46.0               | 50.6               | 95.5              | 105               | 53-142             | 9.5      | 30            |
| PFHPA         | 50.0              | 47.5               | 48.4               | 95.0              | 96.8              | 72-130             | 1.9      | 30            |
| PFHPS         | 47.6              | 45.4               | 46.2               | 95.4              | 97.1              | 69-134             | 1.7      | 30            |
| PFHXA         | 50.0              | 45.7               | 46.8               | 91.4              | 93.6              | 72-129             | 2.4      | 30            |
| PFHXS         | 45.5              | 43.5               | 43.2               | 95.5              | 94.8              | 68-131             | 0.69     | 30            |
| PFNA          | 50.0              | 49.7               | 49.1               | 99.4              | 98.2              | 69-130             | 1.2      | 30            |
| PFNS          | 48.0              | 49.2               | 48.4               | 103               | 101               | 69-127             | 1.6      | 30            |

# = Recovery is outside QC limits.

Comments:

| <u>Primary</u>    | <u>SPK</u>     | <u>DUP</u>     |
|-------------------|----------------|----------------|
| Quant Method :    | B15/2020_12_01 | B15/2020_12_01 |
| Extraction Date : | 11/25/20       | 11/25/20       |
| Analysis Date :   | 12/10/20       | 12/10/20       |
| Instrument :      | Saphira        | Saphira        |
| Run :             | 2020-12-0929   | 2020-12-0930   |
| Initials :        | HHE            |                |



# Laboratory Control Spike Recoveries

## PFAS IN WATER

APPL ID: 201125W-22021 LCS - 259462

Batch ID: #PFASC-201125B1

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

| Compound Name                | Spike Lvl<br>ng/L | SPK Result<br>ng/L | DUP Result<br>ng/L | SPK %<br>Recovery | DUP %<br>Recovery | Recovery<br>Limits | RPD<br>% | RPD<br>Limits |
|------------------------------|-------------------|--------------------|--------------------|-------------------|-------------------|--------------------|----------|---------------|
| PFOA                         | 50.0              | 49.4               | 48.7               | 98.8              | 97.4              | 71-133             | 1.4      | 30            |
| PFOS                         | 46.4              | 43.0               | 43.5               | 92.7              | 93.8              | 65-140             | 1.2      | 30            |
| PFOSA                        | 50.0              | 47.8               | 48.2               | 95.6              | 96.4              | 67-137             | 0.83     | 30            |
| PFPEA                        | 50.0              | 45.8               | 47.0               | 91.6              | 94.0              | 72-129             | 2.6      | 30            |
| PFPEs                        | 46.9              | 44.1               | 45.8               | 94.0              | 97.6              | 71-127             | 3.8      | 30            |
| PFTEDA                       | 50.0              | 50.4               | 52.3               | 101               | 105               | 71-132             | 3.7      | 30            |
| PFTRDA                       | 50.0              | 50.8               | 48.7               | 102               | 97.4              | 65-144             | 4.2      | 30            |
| PFUDA                        | 50.0              | 50.1               | 49.9               | 100               | 99.8              | 69-133             | 0.40     | 30            |
| SURROGATE: 13C2-4:2FTS (S)   | 100               | 92.1               | 83.2               | 92.1              | 83.2              | 50-150             |          |               |
| SURROGATE: 13C2-6:2FTS (S)   | 100               | 101                | 92.7               | 101               | 92.7              | 50-150             |          |               |
| SURROGATE: 13C2-8:2FTS (S)   | 100               | 86.6               | 84.1               | 86.6              | 84.1              | 50-150             |          |               |
| SURROGATE: 13C2-PFDOA (S)    | 100               | 91.0               | 86.6               | 91.0              | 86.6              | 50-150             |          |               |
| SURROGATE: 13C2-PFTEDA (S)   | 100               | 92.1               | 87.7               | 92.1              | 87.7              | 50-150             |          |               |
| SURROGATE: 13C2D4-6:2FTS (S) | 100               | 98.0               | 101                | 98.0              | 101               | 50-150             |          |               |
| SURROGATE: 13C3-HFPO-DA (S)  | 100               | 101                | 95.9               | 101               | 95.9              | 50-150             |          |               |
| SURROGATE: 13C3-PFBS (S)     | 100               | 97.8               | 86.5               | 97.8              | 86.5              | 50-150             |          |               |
| SURROGATE: 13C3-PFHXS (S)    | 100               | 95.5               | 87.8               | 95.5              | 87.8              | 50-150             |          |               |
| SURROGATE: 13C4-PFBA (S)     | 100               | 97.9               | 81.7               | 97.9              | 81.7              | 50-150             |          |               |
| SURROGATE: 13C4-PFHFA (S)    | 100               | 98.7               | 88.7               | 98.7              | 88.7              | 50-150             |          |               |
| SURROGATE: 13C5-PFHXA (S)    | 100               | 96.6               | 89.7               | 96.6              | 89.7              | 50-150             |          |               |
| SURROGATE: 13C5-PFPEA (S)    | 100               | 96.7               | 87.4               | 96.7              | 87.4              | 50-150             |          |               |
| SURROGATE: 13C6-PFDA (S)     | 100               | 96.1               | 88.1               | 96.1              | 88.1              | 50-150             |          |               |
| SURROGATE: 13C7-PFUDA (S)    | 100               | 92.4               | 88.4               | 92.4              | 88.4              | 50-150             |          |               |
| SURROGATE: 13C8-PFOA (S)     | 100               | 95.4               | 86.0               | 95.4              | 86.0              | 50-150             |          |               |

# = Recovery is outside QC limits.

Comments:

| Primary           | SPK            | DUP            |
|-------------------|----------------|----------------|
| Quant Method :    | B15/2020_12_01 | B15/2020_12_01 |
| Extraction Date : | 11/25/20       | 11/25/20       |
| Analysis Date :   | 12/10/20       | 12/10/20       |
| Instrument :      | Saphira        | Saphira        |
| Run :             | 2020-12-0929   | 2020-12-0930   |
| Initials :        | HHE            |                |

## Laboratory Control Spike Recoveries

### PFAS IN WATER

APPL ID: 201125W-22021 LCS - 259462

Batch ID: #PFASC-201125B1

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

| Compound Name              | Spike Lvl<br>ng/L | SPK Result<br>ng/L | DUP Result<br>ng/L | SPK %<br>Recovery | DUP %<br>Recovery | Recovery<br>Limits | RPD<br>% | RPD<br>Limits |
|----------------------------|-------------------|--------------------|--------------------|-------------------|-------------------|--------------------|----------|---------------|
| SURROGATE: 13C8-PFOS (S)   | 100               | 96.2               | 87.3               | 96.2              | 87.3              | 50-150             |          |               |
| SURROGATE: 13C8-PFOSA (S)  | 100               | 91.8               | 82.9               | 91.8              | 82.9              | 50-150             |          |               |
| SURROGATE: 13C9-PFNA (S)   | 100               | 94.3               | 87.4               | 94.3              | 87.4              | 50-150             |          |               |
| SURROGATE: D3-MEFOSA (S)   | 100               | 55.0               | 60.0               | 55.0              | 60.0              | 50-150             |          |               |
| SURROGATE: D3-NMEFOSAA (S) | 100               | 81.7               | 78.4               | 81.7              | 78.4              | 50-150             |          |               |
| SURROGATE: D5-ETFOSA (S)   | 100               | 49.2               | 49.7               | 49.2 #            | 49.7 #            | 50-150             |          |               |
| SURROGATE: D5-NETFOSAA (S) | 100               | 83.9               | 79.2               | 83.9              | 79.2              | 50-150             |          |               |
| SURROGATE: D7-MEFOSE (S)   | 100               | 78.3               | 79.4               | 78.3              | 79.4              | 50-150             |          |               |
| SURROGATE: D9-ETFOSE (S)   | 100               | 85.5               | 74.4               | 85.5              | 74.4              | 50-150             |          |               |

# = Recovery is outside QC limits.

Comments:

| <u>Primary</u>    | <u>SPK</u>     | <u>DUP</u>     |
|-------------------|----------------|----------------|
| Quant Method :    | B15\2020_12_01 | B15\2020_12_01 |
| Extraction Date : | 11/25/20       | 11/25/20       |
| Analysis Date :   | 12/10/20       | 12/10/20       |
| Instrument :      | Saphira        | Saphira        |
| Run :             | 2020-12-0929   | 2020-12-0930   |
| Initials :        | HHE            |                |

# Method Blank

## EPA 1613B DIOXINS FURANS LOW LEV

Blank Name/QCG: 201203W-22128 - 259258  
Batch ID: \$1613LL-201203A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

| Sample Type | Analyte                                | Result | PQL    | EDL/EMPC | Units | Ext Date | Analysis Date |
|-------------|----------------------------------------|--------|--------|----------|-------|----------|---------------|
| BLANK       | 1,2,3,4,6,7,8-HPCDD                    | 0.82 U | 25.0   | 0.82DL   | pg/L  | 12/03/20 | 12/04/20      |
| BLANK       | 1,2,3,4,6,7,8-HPCDF                    | 0.43 U | 25.0   | 0.43DL   | pg/L  | 12/03/20 | 12/04/20      |
| BLANK       | 1,2,3,4,7,8,9-HPCDF                    | 1.5 U  | 25.0   | 1.5PC    | pg/L  | 12/03/20 | 12/04/20      |
| BLANK       | 1,2,3,4,7,8-HXCDD                      | 1.9 U  | 25.0   | 1.9PC    | pg/L  | 12/03/20 | 12/04/20      |
| BLANK       | 1,2,3,4,7,8-HXCDF                      | 0.34 U | 25.0   | 0.34DL   | pg/L  | 12/03/20 | 12/04/20      |
| BLANK       | 1,2,3,6,7,8-HXCDD                      | 1.4 U  | 25.0   | 1.4PC    | pg/L  | 12/03/20 | 12/04/20      |
| BLANK       | 1,2,3,6,7,8-HXCDF                      | 0.63 U | 25.0   | 0.63PC   | pg/L  | 12/03/20 | 12/04/20      |
| BLANK       | 1,2,3,7,8,9-HXCDD                      | 5.8 J  | 25.0   | 5.8PC    | pg/L  | 12/03/20 | 12/04/20      |
| BLANK       | 1,2,3,7,8,9-HXCDF                      | 1.1 U  | 25.0   | 1.1PC    | pg/L  | 12/03/20 | 12/04/20      |
| BLANK       | 1,2,3,7,8-PECDD                        | 1.0 U  | 25.0   | 1.0PC    | pg/L  | 12/03/20 | 12/04/20      |
| BLANK       | 1,2,3,7,8-PECDF                        | 2.3 U  | 25.0   | 2.3PC    | pg/L  | 12/03/20 | 12/04/20      |
| BLANK       | 2,3,4,6,7,8-HXCDF                      | 1.1 U  | 25.0   | 1.1PC    | pg/L  | 12/03/20 | 12/04/20      |
| BLANK       | 2,3,4,7,8-PECDF                        | 1.6 U  | 25.0   | 1.6PC    | pg/L  | 12/03/20 | 12/04/20      |
| BLANK       | 2,3,7,8-TCDD                           | 1.0 U  | 5.0    | 1.0DL    | pg/L  | 12/03/20 | 12/04/20      |
| BLANK       | 2,3,7,8-TCDF                           | 0.58 U | 5.0    | 0.58PC   | pg/L  | 12/03/20 | 12/04/20      |
| BLANK       | OCDD                                   | 3.9 U  | 50.0   | 3.9PC    | pg/L  | 12/03/20 | 12/04/20      |
| BLANK       | OCDF                                   | 3.0 U  | 50.0   | 3.0PC    | pg/L  | 12/03/20 | 12/04/20      |
| BLANK       | SURROGATE: 13C-1,2,3,4,6,7,8-HPCDD (S) | 85.4   | 26-166 |          | %     | 12/03/20 | 12/04/20      |
| BLANK       | SURROGATE: 13C-1,2,3,4,6,7,8-HPCDF (S) | 92.4   | 21-158 |          | %     | 12/03/20 | 12/04/20      |
| BLANK       | SURROGATE: 13C-1,2,3,4,7,8,9-HPCDF (S) | 87.4   | 20-186 |          | %     | 12/03/20 | 12/04/20      |
| BLANK       | SURROGATE: 13C-1,2,3,4,7,8-HXCDD (S)   | 82.2   | 21-193 |          | %     | 12/03/20 | 12/04/20      |
| BLANK       | SURROGATE: 13C-1,2,3,4,7,8-HXCDF (S)   | 96.9   | 19-202 |          | %     | 12/03/20 | 12/04/20      |
| BLANK       | SURROGATE: 13C-1,2,3,6,7,8-HXCDD (S)   | 87.6   | 25-163 |          | %     | 12/03/20 | 12/04/20      |
| BLANK       | SURROGATE: 13C-1,2,3,6,7,8-HXCDF (S)   | 80.1   | 21-159 |          | %     | 12/03/20 | 12/04/20      |
| BLANK       | SURROGATE: 13C-1,2,3,7,8,9-HXCDF (S)   | 78.3   | 17-205 |          | %     | 12/03/20 | 12/04/20      |
| BLANK       | SURROGATE: 13C-1,2,3,7,8-PECDD (S)     | 61.5   | 21-227 |          | %     | 12/03/20 | 12/04/20      |
| BLANK       | SURROGATE: 13C-1,2,3,7,8-PECDF (S)     | 64.8   | 21-192 |          | %     | 12/03/20 | 12/04/20      |
| BLANK       | SURROGATE: 13C-2,3,4,6,7,8-HXCDF (S)   | 86.5   | 22-176 |          | %     | 12/03/20 | 12/04/20      |
| BLANK       | SURROGATE: 13C-2,3,4,7,8-PECDF (S)     | 62.0   | 13-328 |          | %     | 12/03/20 | 12/04/20      |
| BLANK       | SURROGATE: 13C-2,3,7,8-TCDD (S)        | 68.4   | 20-175 |          | %     | 12/03/20 | 12/04/20      |
| BLANK       | SURROGATE: 13C-2,3,7,8-TCDF (S)        | 63.8   | 22-152 |          | %     | 12/03/20 | 12/04/20      |
| BLANK       | SURROGATE: 13C-OCDD (S)                | 78.7   | 13-199 |          | %     | 12/03/20 | 12/04/20      |

J = Estimated value.

Quant Method: 201115\_1613  
Run #: 201202\_HR\_36  
Instrument: Magneto  
Sequence: 201202  
Initials: RP

## Laboratory Control Spike Recoveries

### EPA 1613B DIOXINS FURANS LOW LEV

APPL ID: 201203W-22128 LCS - 259258

Batch ID: #1613LL-201203A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

| Compound Name                        | Spike Lvl<br>pg/L | SPK Result<br>pg/L | DUP Result<br>pg/L | SPK %<br>Recovery | DUP %<br>Recovery | Recovery<br>Limits | RPD<br>% | RPD<br>Limits |
|--------------------------------------|-------------------|--------------------|--------------------|-------------------|-------------------|--------------------|----------|---------------|
| 1,2,3,4,6,7,8-HPCDD                  | 4000              | 3810               | 3950               | 95.3              | 98.8              | 70-140             | 3.6      | 30            |
| 1,2,3,4,6,7,8-HPCDF                  | 4000              | 3820               | 3940               | 95.5              | 98.5              | 82-122             | 3.1      | 30            |
| 1,2,3,4,7,8,9-HPCDF                  | 4000              | 3990               | 3980               | 99.8              | 99.5              | 78-138             | 0.25     | 30            |
| 1,2,3,4,7,8-HXCDD                    | 4000              | 4230               | 4400               | 106               | 110               | 70-164             | 3.9      | 30            |
| 1,2,3,4,7,8-HXCDF                    | 4000              | 3610               | 3700               | 90.3              | 92.5              | 72-134             | 2.5      | 30            |
| 1,2,3,6,7,8-HXCDD                    | 4000              | 4090               | 3720               | 102               | 93.0              | 76-134             | 9.5      | 30            |
| 1,2,3,6,7,8-HXCDF                    | 4000              | 4290               | 4230               | 107               | 106               | 84-130             | 1.4      | 30            |
| 1,2,3,7,8,9-HXCDD                    | 4000              | 3770               | 3710               | 94.3              | 92.8              | 64-162             | 1.6      | 30            |
| 1,2,3,7,8,9-HXCDF                    | 4000              | 4080               | 4270               | 102               | 107               | 78-130             | 4.6      | 30            |
| 1,2,3,7,8-PECDD                      | 4000              | 4160               | 4120               | 104               | 103               | 70-142             | 0.97     | 30            |
| 1,2,3,7,8-PECDF                      | 4000              | 4000               | 4010               | 100               | 100               | 80-134             | 0.25     | 30            |
| 2,3,4,6,7,8-HXCDF                    | 4000              | 4150               | 4220               | 104               | 106               | 70-156             | 1.7      | 30            |
| 2,3,4,7,8-PECDF                      | 4000              | 4050               | 4040               | 101               | 101               | 68-160             | 0.25     | 30            |
| 2,3,7,8-TCDD                         | 800               | 755                | 741                | 94.4              | 92.6              | 67-158             | 1.9      | 30            |
| 2,3,7,8-TCDF                         | 800               | 730                | 749                | 91.3              | 93.6              | 75-158             | 2.6      | 30            |
| OCDD                                 | 8000              | 8870               | 8400               | 111               | 105               | 78-144             | 5.4      | 30            |
| OCDF                                 | 8000              | 9170               | 8600               | 115               | 108               | 63-170             | 6.4      | 30            |
| <hr/>                                |                   |                    |                    |                   |                   |                    |          |               |
| SURROGATE: 13C-1,2,3,4,6,7,8-HPCDD   | 2000              | 1810               | 1650               | 90.5              | 82.5              | 26-166             |          |               |
| SURROGATE: 13C-1,2,3,4,6,7,8-HPCDF ( | 2000              | 1840               | 1700               | 92.0              | 85.0              | 21-158             |          |               |
| SURROGATE: 13C-1,2,3,4,7,8,9-HPCDF ( | 2000              | 1730               | 1630               | 86.5              | 81.5              | 20-186             |          |               |
| SURROGATE: 13C-1,2,3,4,7,8-HXCDD (S  | 2000              | 1660               | 1710               | 83.0              | 85.5              | 21-193             |          |               |
| SURROGATE: 13C-1,2,3,4,7,8-HXCDF (S  | 2000              | 1890               | 1920               | 94.5              | 96.0              | 19-202             |          |               |
| SURROGATE: 13C-1,2,3,6,7,8-HXCDD (S  | 2000              | 1770               | 1930               | 88.5              | 96.5              | 25-163             |          |               |
| SURROGATE: 13C-1,2,3,6,7,8-HXCDF (S  | 2000              | 1580               | 1630               | 79.0              | 81.5              | 21-159             |          |               |

Comments: \_\_\_\_\_

| <u>Primary</u>    | <u>SPK</u>   | <u>DUP</u>   |
|-------------------|--------------|--------------|
| Quant Method :    | 201115_1613  | 201115_1613  |
| Extraction Date : | 12/03/20     | 12/03/20     |
| Analysis Date :   | 12/04/20     | 12/04/20     |
| Instrument :      | Magneto      | Magneto      |
| Run :             | 201202_HR_34 | 201202_HR_35 |
| Initials :        | RP           |              |

# Laboratory Control Spike Recoveries

## EPA 1613B DIOXINS FURANS LOW LEV

APPL ID: 201203W-22128 LCS - 259258

Batch ID: #1613LL-201203A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

| Compound Name                        | Spike Lvl<br>pg/L | SPK Result<br>pg/L | DUP Result<br>pg/L | SPK %<br>Recovery | DUP %<br>Recovery | Recovery<br>Limits | RPD<br>% | RPD<br>Limits |
|--------------------------------------|-------------------|--------------------|--------------------|-------------------|-------------------|--------------------|----------|---------------|
| SURROGATE: 13C-1,2,3,7,8,9-HXCDF (S) | 2000              | 1630               | 1570               | 81.5              | 78.5              | 17-205             |          |               |
| SURROGATE: 13C-1,2,3,7,8-PECDD (S)   | 2000              | 1220               | 1420               | 61.0              | 71.0              | 21-227             |          |               |
| SURROGATE: 13C-1,2,3,7,8-PECDF (S)   | 2000              | 1310               | 1460               | 65.5              | 73.0              | 21-192             |          |               |
| SURROGATE: 13C-2,3,4,6,7,8-HXCDF (S) | 2000              | 1660               | 1640               | 83.0              | 82.0              | 22-176             |          |               |
| SURROGATE: 13C-2,3,4,7,8-PECDF (S)   | 2000              | 1240               | 1420               | 62.0              | 71.0              | 13-328             |          |               |
| SURROGATE: 13C-2,3,7,8-TCDD (S)      | 2000              | 1290               | 1500               | 64.5              | 75.0              | 20-175             |          |               |
| SURROGATE: 13C-2,3,7,8-TCDF (S)      | 2000              | 1290               | 1400               | 64.5              | 70.0              | 22-152             |          |               |
| SURROGATE: 13C-OCDD (S)              | 4000              | 3050               | 3030               | 76.3              | 75.8              | 13-199             |          |               |

Comments:

| <u>Primary</u>    | <u>SPK</u>   | <u>DUP</u>   |
|-------------------|--------------|--------------|
| Quant Method :    | 201115_1613  | 201115_1613  |
| Extraction Date : | 12/03/20     | 12/03/20     |
| Analysis Date :   | 12/04/20     | 12/04/20     |
| Instrument :      | Magneto      | Magneto      |
| Run :             | 201202_HR_34 | 201202_HR_35 |
| Initials :        | RP           |              |



# CHAIN OF CUSTODY RECORD

Omega COCID 205 PAGE: 1 OF: 1

94191

**ADDRESS**  
 Neilson Research Corporation  
 245 S Grape St  
 Medford, OR 97501  
 TEL: (541) 770-5678  
 FAX: (541) 770-2901  
 Website: www.mrlabs.com



|                                           |       |                                                     |  |
|-------------------------------------------|-------|-----------------------------------------------------|--|
| SUB CONTRACTOR: <b>Appl Inc</b>           |       | COMPANY: <b>Agriculture &amp; Priority Pollutan</b> |  |
| ADDRESS: <b>908 N Temperance Ave</b>      |       |                                                     |  |
| CITY, STATE, ZIP: <b>Clovis, CA 93611</b> |       |                                                     |  |
| PHONE: <b>(559) 275-2175</b>              | FAX:  | EMAIL:                                              |  |
| ACCOUNT #:                                | PO #: | <b>1305</b>                                         |  |

| ITEM # | SAMPLE ID    | Client Sample ID   | Bottle Type | MATRIX | DATE COLLECTED        | NUMBER OF CONTAINERS |
|--------|--------------|--------------------|-------------|--------|-----------------------|----------------------|
| 1      | 20110721-01G | Bear Creek Greenwa | AMB 1L      | W      | 11/15/2020 4:45:00 PM | 2                    |
| 2      | 20110721-01K | Bear Creek Greenwa | HDPE 250ML  | W      | 11/15/2020 4:45:00 PM | 2                    |

|                            |             |
|----------------------------|-------------|
| ANALYTICAL PARAMETERS      |             |
| SUB-MISC (SUB-MISC)        |             |
| SUB-DIOXINS/FURANS (E1613) | ✓           |
|                            | PFOS & PFAS |

SPECIAL INSTRUCTIONS / COMMENTS:

|                                     |                         |                      |                                 |                       |                    |
|-------------------------------------|-------------------------|----------------------|---------------------------------|-----------------------|--------------------|
| Relinquished By: <i>[Signature]</i> | Date: <b>11/19/2020</b> | Time: <b>8:41 AM</b> | Received By:                    | Date:                 | Time:              |
| Relinquished By:                    | Date:                   | Time:                | Received By:                    | Date:                 | Time:              |
| Relinquished By:                    | Date:                   | Time:                | Received By: <i>[Signature]</i> | Date: <b>11/26/20</b> | Time: <b>11:00</b> |

TAT: Standard ☐ RUSH ☒ Next BD ☐ 2nd BD ☐ 3rd BD ☐

Note: RUSH requests will incur surcharges!

|                             |                                                 |                              |                                |                                 |
|-----------------------------|-------------------------------------------------|------------------------------|--------------------------------|---------------------------------|
| REPORT TRANSMITTAL DESIRED: | <input type="checkbox"/> HARD COPY (extra cost) | <input type="checkbox"/> FAX | <input type="checkbox"/> EMAIL | <input type="checkbox"/> ONLINE |
|-----------------------------|-------------------------------------------------|------------------------------|--------------------------------|---------------------------------|

Temp of samples **6.4/4.5** °C Attempt to Cool? ☐

Comments:



1435 Norjohn Court, Unit 1, Burlington, ON, Canada L7L 0E6  
Phone: 905-331-3111, FAX: 905-331-4567

## Certificate of Analysis

|                               |                    |                           |                              |
|-------------------------------|--------------------|---------------------------|------------------------------|
| <b>ALS Project Contact:</b>   | Breanne Dusureault | <b>Client Name:</b>       | Neilson Research Corporation |
| <b>ALS Project ID:</b>        | NRC300             | <b>Client Address:</b>    | 245 South Grape St.          |
| <b>ALS WO#:</b>               | L2531918           |                           | Medford, OR 97501            |
| <b>Date of Report</b>         | 6-Jan-21           |                           | USA                          |
| <b>Date of Sample Receipt</b> | 20-Nov-20          | <b>Client Contact:</b>    | Tamra Schmedemann            |
|                               |                    | <b>Client Project ID:</b> | PO# 1306                     |

**COMMENTS:** Brominated Flame Retardants by EPA 1614

Certified by: \_\_\_\_\_

Steve Kennedy  
Technical Supervisor

Results in this certificate relate only to the samples as submitted to the laboratory.

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| ALS Life Sciences              |                                                  |
|--------------------------------|--------------------------------------------------|
| Sample Analysis Summary Report |                                                  |
| Sample Name                    | 20110721-01L<br>BEAR CREEK<br>GREENWAY<br>BRIDGE |
| ALS Sample ID                  | L2531918-1                                       |
| Sample Size                    | 1.02                                             |
| Sample size units              | L                                                |
| Percent Moisture               | n/a                                              |
| Sample Matrix                  | Water                                            |
| Sampling Date                  | 15-Nov-20                                        |
| Extraction Date                | 3-Dec-20                                         |
| <b>Target Analytes</b>         | <b>pg/L</b>                                      |
| BDE 10                         | <0.049                                           |
| BDE 7                          | 1.25                                             |
| BDE 8/11                       | 1.19                                             |
| BDE 12/13                      | 1.32                                             |
| BDE 15                         | 4.86                                             |
| BDE 30                         | <2.6                                             |
| BDE 32                         | <0.35                                            |
| BDE 17/25                      | 18.8                                             |
| BDE 28/33                      | 20.6                                             |
| BDE 35                         | <2.8                                             |
| BDE 37                         | 2.38                                             |
| PBEB                           | <0.59                                            |
| PBB 52                         | <0.13                                            |
| HBB                            | 6.23                                             |
| BDE 75                         | 1.96                                             |
| BDE 51                         | 2.89                                             |
| BDE 49                         | 32.6                                             |
| BDE 71                         | 3.58                                             |
| BDE 47                         | 582                                              |
| BDE 79                         | 7.05                                             |
| BDE 66                         | 22.9                                             |
| BDE 77                         | <0.48                                            |
| PBB 101                        | <0.23                                            |
| BDE 100                        | 169                                              |
| BDE 119/120                    | 2.27                                             |
| BDE 99                         | 690                                              |
| BDE 116                        | 2.62                                             |
| BDE 83                         | <0.44                                            |
| BDE 118                        | 3.67                                             |
| BDE 85                         | 27.8                                             |
| BDE 126                        | <0.36                                            |
| BDE 105                        | <0.40                                            |
| PBB 153                        | 2.70                                             |
| BDE 155                        | 6.79                                             |
| BDE 154                        | 85.0                                             |
| BDE 153                        | 77.8                                             |
| BDE 140                        | 4.58                                             |
| BDE 138/166                    | 16.2                                             |
| BDE 156                        | <2.8                                             |
| BDE 128                        | <2.5                                             |
| BDE 184                        | 2.13                                             |
| BDE 183                        | 16.6                                             |
| BDE 191                        | 1.98                                             |
| BDE 181                        | <0.90                                            |
| BDE 190                        | <2.4                                             |
| PBB 180                        | <0.70                                            |
| BDE 197                        | 12.2                                             |
| BDE 203                        | 12.1                                             |
| BDE 196                        | 8.51                                             |
| PBB 194                        | <0.84                                            |
| BDE 208                        | 33.4                                             |
| BDE 207                        | 69.3                                             |
| BDE 206                        | 118                                              |
| PBB 206                        | <1.9                                             |
| PBB 209                        | <1.2                                             |
| BDE 209                        | 2620                                             |
| <b>Extraction Standards</b>    | <b>% Rec</b>                                     |
| 13C12 BDE 15                   | 66                                               |
| 13C12 BDE 28                   | 88                                               |
| 13C6 HBB                       | 108                                              |
| 13C12 BDE 47                   | 103                                              |
| 13C12 BDE 77                   | 128                                              |
| 13C12 BDE 100                  | 59                                               |
| 13C12 BDE 99                   | 72                                               |
| 13C12 BDE 126                  | 76                                               |
| 13C12 BDE 154                  | 63                                               |
| 13C12 BDE 153                  | 67                                               |
| 13C12 BDE 183                  | 58                                               |
| 13C12 BDE 197                  | 73                                               |
| 13C12 BDE 207                  | 56                                               |
| 13C12 BDE 209                  | 77                                               |
| <b>Cleanup Standard</b>        |                                                  |
| 13C12 BDE 138 Cleanup          | 56                                               |



| ALS Life Sciences              |              |                           |
|--------------------------------|--------------|---------------------------|
| Quality Control Summary Report |              |                           |
| Sample Name                    | Method Blank | Laboratory Control Sample |
| ALS Sample ID                  | WG3444454-1  | WG3444454-2               |
| Sample Size                    | 1.00         | 1                         |
| Sample size units              | L            | n/a                       |
| Percent Moisture               | n/a          | n/a                       |
| Sample Matrix                  | QC           | QC                        |
| Sampling Date                  | n/a          | n/a                       |
| Extraction Date                | 3-Dec-20     | 3-Dec-20                  |
| Target Analytes                | pg/L         | % Rec                     |
| BDE 10                         | <0.064       | 24                        |
| BDE 7                          | <0.067       | 43                        |
| BDE 8/11                       | <0.11        | 80                        |
| BDE 12/13                      | <0.041       | 69                        |
| BDE 15                         | 0.280        | 91                        |
| BDE 30                         | <0.27        | 49                        |
| BDE 32                         | <0.21        | 91                        |
| BDE 17/25                      | 0.430        | 103                       |
| BDE 28/33                      | 1.05         | 93                        |
| BDE 35                         | <0.19        | 113                       |
| BDE 37                         | <0.19        | 99                        |
| PBEB                           | 0.720        | 108                       |
| PBB 52                         | <0.13        | 130                       |
| HBB                            | 4.69         | 91                        |
| BDE 75                         | <0.097       | 82                        |
| BDE 51                         | <0.14        | 88                        |
| BDE 49                         | 1.16         | 86                        |
| BDE 71                         | <0.13        | 86                        |
| BDE 47                         | 29.6         | 100                       |
| BDE 79                         | <0.082       | 97                        |
| BDE 66                         | <0.41        | 93                        |
| BDE 77                         | <0.092       | 93                        |
| PBB 101                        | <0.18        | 96                        |
| BDE 100                        | 5.89         | 94                        |
| BDE 119/120                    | <0.19        | 99                        |
| BDE 99                         | 31.0         | 97                        |
| BDE 116                        | <0.31        | 67                        |
| BDE 83                         | <0.28        | 88                        |
| BDE 118                        | <0.24        | 93                        |
| BDE 85                         | 1.22         | 100                       |
| BDE 126                        | <0.13        | 94                        |
| BDE 105                        | <0.25        | 94                        |
| PBB 153                        | <0.27        | 102                       |
| BDE 155                        | <0.19        | 91                        |
| BDE 154                        | 2.22         | 95                        |
| BDE 153                        | <0.64        | 93                        |
| BDE 140                        | <0.48        | 89                        |
| BDE 138/166                    | <0.94        | 112                       |
| BDE 156                        | <1.3         | 108                       |
| BDE 128                        | <1.2         | 112                       |
| BDE 184                        | <0.34        | 108                       |
| BDE 183                        | 1.28         | 96                        |
| BDE 191                        | <0.82        | 112                       |
| BDE 181                        | <0.81        | 104                       |
| BDE 190                        | <1.2         | 124                       |
| PBB 180                        | <0.73        | 98                        |
| BDE 197                        | <0.88        | 93                        |
| BDE 203                        | <0.83        | 111                       |
| BDE 196                        | <0.70        | 94                        |
| PBB 194                        | <0.73        | 98                        |
| BDE 208                        | <0.78        | 93                        |
| BDE 207                        | 4.59         | 94                        |
| BDE 206                        | <4.2         | 122                       |
| PBB 206                        | <1.6         | 79                        |
| PBB 209                        | <1.0         | 98                        |
| BDE 209                        | 66.5         | 101                       |
| Extraction Standards           | % Rec        | % Rec                     |
| 13C12 BDE 15                   | 67           | 60                        |
| 13C12 BDE 28                   | 86           | 74                        |
| 13C6 HBB                       | 78           | 69                        |
| 13C12 BDE 47                   | 80           | 74                        |
| 13C12 BDE 77                   | 86           | 82                        |
| 13C12 BDE 100                  | 76           | 69                        |
| 13C12 BDE 99                   | 80           | 75                        |
| 13C12 BDE 126                  | 79           | 82                        |
| 13C12 BDE 154                  | 79           | 76                        |
| 13C12 BDE 153                  | 74           | 74                        |
| 13C12 BDE 183                  | 74           | 68                        |
| 13C12 BDE 197                  | 74           | 79                        |
| 13C12 BDE 207                  | 64           | 64                        |
| 13C12 BDE 209                  | 74           | 87                        |
| Cleanup Standard               |              |                           |
| 13C12 BDE 138 Cleanup          | 77           | 83                        |

| ALS Life Sciences                                                                                |  |  |                                                                                      |  |  |                                                                                    |  |  |                                             |  |  |                                                          |
|--------------------------------------------------------------------------------------------------|--|--|--------------------------------------------------------------------------------------|--|--|------------------------------------------------------------------------------------|--|--|---------------------------------------------|--|--|----------------------------------------------------------|
| Sample Analysis Report                                                                           |  |  |                                                                                      |  |  |                                                                                    |  |  |                                             |  |  |                                                          |
| Sample Name<br>ALS Sample ID<br>Analysis Method<br>Analysis Type<br>Sample Matrix                |  |  | 20110721-01L BEAR CREEK GREENWAY BRIDGE<br>L2531918-1<br>EPA 1614<br>Sample<br>Water |  |  | Sampling Date<br>Extraction Date<br>Sample Size<br>Percent Moisture<br>Split Ratio |  |  | 15-Nov-20<br>3-Dec-20<br>1.02 L<br>n/a<br>1 |  |  | Approved:<br>Ella Gdyczynski<br>signature<br>05-Jan-2021 |
| Run Information                                                                                  |  |  |                                                                                      |  |  |                                                                                    |  |  |                                             |  |  |                                                          |
| Run 1                                                                                            |  |  |                                                                                      |  |  | Run 2                                                                              |  |  |                                             |  |  |                                                          |
| Filename<br>Run Date<br>Final Volume<br>Dilution Factor<br>Analysis Units<br>Instrument - Column |  |  |                                                                                      |  |  | 9-201231A15<br>31-Dec-20 23:59<br>25 uL<br>1<br>pg/L<br>HRMS-9 DB5 US0210114H      |  |  |                                             |  |  |                                                          |
| 9-210105A05<br>05-Jan-21 12:07<br>25 uL<br>5<br>pg/L<br>HRMS-9 DB5 US0210114H                    |  |  |                                                                                      |  |  |                                                                                    |  |  |                                             |  |  |                                                          |
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# ALS Life Sciences

## Laboratory Method Blank Analysis Report

|                    |                     |                  |          |                                                                                                        |
|--------------------|---------------------|------------------|----------|--------------------------------------------------------------------------------------------------------|
| <b>Sample Name</b> | <b>Method Blank</b> | Sampling Date    | n/a      | <div>Approved:</div> <div><i>Ella Gdyczynski</i></div> <div>--signature--</div> <div>05-Jan-2021</div> |
| ALS Sample ID      | WG3444454-1         | Extraction Date  | 3-Dec-20 |                                                                                                        |
| Analysis Method    | EPA 1614            | Sample Size      | 1.00 L   |                                                                                                        |
| Analysis Type      | Blank               | Percent Moisture | n/a      |                                                                                                        |
| Sample Matrix      | QC                  | Split Ratio      | 1        |                                                                                                        |

|                        |                       |
|------------------------|-----------------------|
| <b>Run Information</b> | <b>Run 1</b>          |
| Filename               | 9-201231A07A          |
| Run Date               | 31-Dec-20 19:07       |
| Final Volume           | 25 uL                 |
| Dilution Factor        | 1                     |
| Analysis Units         | pg/L                  |
| Instrument - Column    | HRMS-9 DB5 US0210114H |

| Target Analytes | Ret. Time | Conc. pg/L | EDL pg/L | Flags | EMPC pg/L | LQL |
|-----------------|-----------|------------|----------|-------|-----------|-----|
| BDE 10          | NotFnd    | <0.064     | 0.064    | U     |           | 25  |
| BDE 7           | NotFnd    | <0.067     | 0.067    | U     |           | 25  |
| BDE 8/11        | 7.03      | <0.11      | 0.049    | M,J,R | 0.11      | 50  |
| BDE 12/13       | NotFnd    | <0.041     | 0.041    | U     |           | 50  |
| BDE 15          | 7.29      | 0.280      | 0.036    | J     |           | 25  |
| BDE 30          | NotFnd    | <0.27      | 0.27     | U     |           | 25  |
| BDE 32          | NotFnd    | <0.21      | 0.21     | U     |           | 25  |
| BDE 17/25       | 8.63      | 0.430      | 0.28     | M,J   |           | 50  |
| BDE 28/33       | 8.87      | 1.05       | 0.28     | J     |           | 50  |
| BDE 35          | NotFnd    | <0.19      | 0.19     | U     |           | 25  |
| BDE 37          | NotFnd    | <0.19      | 0.19     | U     |           | 25  |
| PBEB            | 9.25      | 0.720      | 0.086    | M,J   |           | 25  |
| PBB 52          | NotFnd    | <0.13      | 0.13     | U     |           | 25  |
| HBB             | 10.26     | 4.69       | 0.10     | J     |           | 25  |
| BDE 75          | NotFnd    | <0.097     | 0.097    | U     |           | 25  |
| BDE 51          | 10.37     | <0.14      | 0.085    | M,J,R | 0.14      | 25  |
| BDE 49          | 10.47     | 1.16       | 0.13     | M,J   |           | 25  |
| BDE 71          | NotFnd    | <0.13      | 0.13     | U     |           | 25  |
| BDE 47          | 10.82     | 29.6       | 0.090    | M     |           | 25  |
| BDE 79          | NotFnd    | <0.082     | 0.082    | U     |           | 25  |
| BDE 66          | 11.11     | <0.41      | 0.15     | M,J,R | 0.41      | 25  |
| BDE 77          | NotFnd    | <0.092     | 0.092    | U     |           | 25  |
| PBB 101         | NotFnd    | <0.18      | 0.18     | U     |           | 50  |
| BDE 100         | 12.49     | 5.89       | 0.090    | M,J   |           | 38  |
| BDE 119/120     | NotFnd    | <0.19      | 0.19     | U     |           | 38  |
| BDE 99          | 13.00     | 31.0       | 0.14     | M,J   |           | 38  |
| BDE 116         | NotFnd    | <0.31      | 0.31     | U     |           | 38  |
| BDE 83          | NotFnd    | <0.28      | 0.28     | U     |           | 38  |
| BDE 118         | NotFnd    | <0.24      | 0.24     | U     |           | 38  |
| BDE 85          | 13.90     | 1.22       | 0.21     | J     |           | 38  |
| BDE 126         | NotFnd    | <0.13      | 0.13     | U     |           | 38  |
| BDE 105         | NotFnd    | <0.25      | 0.25     | U     |           | 38  |
| PBB 153         | NotFnd    | <0.27      | 0.27     | U     |           | 50  |
| BDE 155         | NotFnd    | <0.19      | 0.19     | U     |           | 50  |
| BDE 154         | 14.45     | 2.22       | 0.23     | J     |           | 50  |
| BDE 153         | NotFnd    | <0.64      | 0.64     | U     |           | 50  |
| BDE 140         | NotFnd    | <0.48      | 0.48     | U     |           | 50  |
| BDE 138/166     | NotFnd    | <0.94      | 0.94     | U     |           | 100 |
| BDE 156         | NotFnd    | <1.3       | 1.3      | U     |           | 50  |
| BDE 128         | NotFnd    | <1.2       | 1.2      | U     |           | 50  |
| BDE 184         | NotFnd    | <0.34      | 0.34     | U     |           | 63  |
| BDE 183         | 17.33     | 1.28       | 0.49     | M,J   |           | 63  |
| BDE 191         | NotFnd    | <0.82      | 0.82     | U     |           | 63  |
| BDE 181         | NotFnd    | <0.81      | 0.81     | U     |           | 63  |
| BDE 190         | NotFnd    | <1.2       | 1.2      | U     |           | 63  |
| PBB 180         | NotFnd    | <0.73      | 0.73     | U     |           | 50  |
| BDE 197         | 19.76     | <0.88      | 0.60     | M,J,R | 0.88      | 63  |
| BDE 203         | NotFnd    | <0.83      | 0.83     | U     |           | 63  |
| BDE 196         | NotFnd    | <0.70      | 0.70     | U     |           | 63  |
| PBB 194         | NotFnd    | <0.73      | 0.73     | U     |           | 50  |
| BDE 208         | 21.38     | <0.78      | 0.53     | M,J,R | 0.78      | 130 |
| BDE 207         | 21.51     | 4.59       | 0.49     | M,J   |           | 130 |
| BDE 206         | 21.80     | <4.2       | 0.67     | M,J,R | 4.2       | 130 |
| PBB 206         | NotFnd    | <1.6       | 1.6      | U     |           | 130 |
| PBB 209         | NotFnd    | <1.0       | 1.0      | U     |           | 130 |
| BDE 209         | 23.64     | 66.5       | 1.6      | J     |           | 130 |

| Extraction Standards | pg   | % Rec | Limits    |
|----------------------|------|-------|-----------|
| 13C12 BDE 15         | 1000 | 7.28  | 67 25-150 |
| 13C12 BDE 28         | 1000 | 8.86  | 86 25-150 |
| 13C6 HBB             | 1000 | 10.26 | 78 25-150 |
| 13C12 BDE 47         | 1000 | 10.81 | 80 25-150 |
| 13C12 BDE 77         | 1000 | 11.58 | 86 25-150 |
| 13C12 BDE 100        | 1000 | 12.49 | 76 25-150 |
| 13C12 BDE 99         | 1000 | 13.00 | 80 25-150 |
| 13C12 BDE 126        | 1000 | 14.06 | 79 25-150 |
| 13C12 BDE 154        | 1000 | 14.45 | 79 25-150 |
| 13C12 BDE 153        | 1000 | 15.18 | 74 25-150 |
| 13C12 BDE 183        | 1000 | 17.33 | 74 25-150 |
| 13C12 BDE 197        | 2000 | 19.75 | 74 25-150 |
| 13C12 BDE 207        | 5000 | 21.51 | 64 25-150 |
| 13C12 BDE 209        | 5000 | 23.63 | 74 20-200 |

| Cleanup Standard      | pg   | % Rec | Limits    |
|-----------------------|------|-------|-----------|
| 13C12 BDE 138 Cleanup | 2000 | 16.15 | 77 30-135 |

|      |                                                                                                                          |
|------|--------------------------------------------------------------------------------------------------------------------------|
| EDL  | Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.          |
| LQL  | Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.       |
| M    | Indicates that a peak has been manually integrated.                                                                      |
| U    | Indicates that this compound was not detected above the EDL.                                                             |
| J    | Indicates that a target analyte was detected below the calibrated range.                                                 |
| R    | Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.                          |
| EMPC | Estimated Maximum Possible Concentration - elevated detection limit due to interference or positive id criterion failure |

| ALS Life Sciences                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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-|-------|----|--------|--|---------------|------|-------|----|--------|--|---------------|------|-------|----|--------|--|-------------------------|-----------|--|--|--|--|-----------------------|------|-------|----|--------|--|
| Laboratory Control Sample Analysis Report                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| <b>Sample Name</b><br>ALS Sample ID<br>Analysis Method<br>Analysis Type<br>Sample Matrix                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           | <b>Laboratory Control Sample</b><br>WG3444454-2<br>EPA 1614<br>LCS<br>QC   |              | Sampling Date<br>Extraction Date<br>Sample Size<br>Percent Moisture<br>Split Ratio |       |  | n/a<br>3-Dec-20<br>1<br>n/a<br>n/a<br>1 |  | <div> Approved:<br/> Ella Gdyczynski<br/> --signature--<br/> 05-Jan-2021 </div> |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |       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   |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| <b>Run Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| <b>Run 1</b><br>Filename<br>Run Date<br>Final Volume<br>Dilution Factor<br>Analysis Units<br>Instrument - Column                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       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               |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         | 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| <table border="1"> <thead> <tr> <th>Target Analytes</th> <th>pg</th> <th>Ret. Time</th> <th>% Rec</th> <th>Limits</th> <th>Flags</th> </tr> </thead> <tbody> <tr><td>BDE 10</td><td>400</td><td>6.49</td><td>24</td><td>5-130</td><td></td></tr> <tr><td>BDE 7</td><td>400</td><td>6.86</td><td>43</td><td>5-130</td><td></td></tr> <tr><td>BDE 8/11</td><td>800</td><td>7.01</td><td>80</td><td>50-150</td><td></td></tr> <tr><td>BDE 12/13</td><td>800</td><td>7.14</td><td>69</td><td>5-130</td><td></td></tr> <tr><td>BDE 15</td><td>400</td><td>7.28</td><td>91</td><td>50-150</td><td></td></tr> <tr><td>BDE 30</td><td>400</td><td>7.98</td><td>49</td><td>5-130</td><td></td></tr> <tr><td>BDE 32</td><td>400</td><td>8.46</td><td>91</td><td>50-150</td><td></td></tr> <tr><td>BDE 17/25</td><td>800</td><td>8.63</td><td>103</td><td>50-150</td><td></td></tr> <tr><td>BDE 28/33</td><td>800</td><td>8.87</td><td>93</td><td>50-150</td><td></td></tr> <tr><td>BDE 35</td><td>400</td><td>9.03</td><td>113</td><td>50-150</td><td></td></tr> <tr><td>BDE 37</td><td>400</td><td>9.23</td><td>99</td><td>50-150</td><td></td></tr> <tr><td>PBEB</td><td>400</td><td>9.24</td><td>108</td><td>50-150</td><td></td></tr> <tr><td>PBB 52</td><td>400</td><td>9.34</td><td>130</td><td>50-150</td><td></td></tr> <tr><td>HBB</td><td>400</td><td>10.26</td><td>91</td><td>50-150</td><td></td></tr> <tr><td>BDE 75</td><td>400</td><td>10.31</td><td>82</td><td>50-150</td><td></td></tr> <tr><td>BDE 51</td><td>400</td><td>10.37</td><td>88</td><td>50-150</td><td></td></tr> <tr><td>BDE 49</td><td>400</td><td>10.47</td><td>86</td><td>50-150</td><td></td></tr> <tr><td>BDE 71</td><td>400</td><td>10.55</td><td>86</td><td>50-150</td><td></td></tr> <tr><td>BDE 47</td><td>400</td><td>10.82</td><td>100</td><td>50-150</td><td></td></tr> <tr><td>BDE 79</td><td>400</td><td>10.98</td><td>97</td><td>50-150</td><td></td></tr> <tr><td>BDE 66</td><td>400</td><td>11.11</td><td>93</td><td>50-150</td><td></td></tr> <tr><td>BDE 77</td><td>400</td><td>11.59</td><td>93</td><td>50-150</td><td></td></tr> <tr><td>PBB 101</td><td>800</td><td>11.74</td><td>96</td><td>50-150</td><td></td></tr> <tr><td>BDE 100</td><td>600</td><td>12.50</td><td>94</td><td>50-150</td><td></td></tr> <tr><td>BDE 119/120</td><td>1200</td><td>12.66</td><td>99</td><td>50-150</td><td></td></tr> <tr><td>BDE 99</td><td>600</td><td>13.00</td><td>97</td><td>50-150</td><td></td></tr> <tr><td>BDE 116</td><td>600</td><td>13.17</td><td>67</td><td>40-140</td><td></td></tr> <tr><td>BDE 83</td><td>600</td><td>13.29</td><td>88</td><td>50-150</td><td></td></tr> <tr><td>BDE 118</td><td>600</td><td>13.42</td><td>93</td><td>50-150</td><td></td></tr> <tr><td>BDE 85</td><td>600</td><td>13.92</td><td>100</td><td>50-150</td><td></td></tr> <tr><td>BDE 126</td><td>600</td><td>14.08</td><td>94</td><td>50-150</td><td></td></tr> <tr><td>BDE 105</td><td>600</td><td>14.24</td><td>94</td><td>50-150</td><td></td></tr> <tr><td>PBB 153</td><td>800</td><td>14.41</td><td>102</td><td>50-150</td><td></td></tr> <tr><td>BDE 155</td><td>800</td><td>14.08</td><td>91</td><td>50-150</td><td></td></tr> <tr><td>BDE 154</td><td>800</td><td>14.46</td><td>95</td><td>50-150</td><td></td></tr> <tr><td>BDE 153</td><td>800</td><td>15.19</td><td>93</td><td>50-150</td><td></td></tr> <tr><td>BDE 140</td><td>800</td><td>15.66</td><td>89</td><td>50-150</td><td></td></tr> <tr><td>BDE 138/166</td><td>1600</td><td>16.16</td><td>112</td><td>50-150</td><td>M</td></tr> <tr><td>BDE 156</td><td>800</td><td>16.54</td><td>108</td><td>50-150</td><td></td></tr> <tr><td>BDE 128</td><td>800</td><td>17.17</td><td>112</td><td>50-150</td><td></td></tr> <tr><td>BDE 184</td><td>1000</td><td>16.98</td><td>108</td><td>50-150</td><td></td></tr> <tr><td>BDE 183</td><td>1000</td><td>17.34</td><td>96</td><td>50-150</td><td></td></tr> <tr><td>BDE 191</td><td>1000</td><td>17.90</td><td>112</td><td>50-150</td><td></td></tr> <tr><td>BDE 181</td><td>1000</td><td>18.45</td><td>104</td><td>50-150</td><td></td></tr> <tr><td>BDE 190</td><td>1000</td><td>18.62</td><td>124</td><td>50-150</td><td></td></tr> <tr><td>PBB 180</td><td>800</td><td>17.45</td><td>98</td><td>50-150</td><td></td></tr> <tr><td>BDE 197</td><td>1000</td><td>19.76</td><td>93</td><td>50-150</td><td></td></tr> <tr><td>BDE 203</td><td>1000</td><td>20.00</td><td>111</td><td>50-150</td><td></td></tr> <tr><td>BDE 196</td><td>1000</td><td>20.13</td><td>94</td><td>50-150</td><td></td></tr> <tr><td>PBB 194</td><td>800</td><td>20.19</td><td>98</td><td>50-150</td><td></td></tr> <tr><td>BDE 208</td><td>2000</td><td>21.39</td><td>93</td><td>50-150</td><td></td></tr> <tr><td>BDE 207</td><td>2000</td><td>21.52</td><td>94</td><td>50-150</td><td></td></tr> <tr><td>BDE 206</td><td>2000</td><td>21.80</td><td>122</td><td>50-150</td><td></td></tr> <tr><td>PBB 206</td><td>2000</td><td>21.23</td><td>79</td><td>40-200</td><td></td></tr> <tr><td>PBB 209</td><td>2000</td><td>22.21</td><td>98</td><td>40-200</td><td></td></tr> <tr><td>BDE 209</td><td>2000</td><td>23.64</td><td>101</td><td>40-200</td><td></td></tr> <tr> <td><b>Extraction Standards</b></td> <td><b>pg</b></td> <td></td> <td><b>% Rec</b></td> <td><b>Limits</b></td> <td></td> </tr> <tr><td>13C12 BDE 15</td><td>1000</td><td>7.27</td><td>60</td><td>25-150</td><td></td></tr> <tr><td>13C12 BDE 28</td><td>1000</td><td>8.86</td><td>74</td><td>30-140</td><td></td></tr> <tr><td>13C6 HBB</td><td>1000</td><td>10.26</td><td>69</td><td>30-140</td><td></td></tr> <tr><td>13C12 BDE 47</td><td>1000</td><td>10.81</td><td>74</td><td>30-140</td><td></td></tr> <tr><td>13C12 BDE 77</td><td>1000</td><td>11.59</td><td>82</td><td>30-140</td><td></td></tr> <tr><td>13C12 BDE 100</td><td>1000</td><td>12.49</td><td>69</td><td>30-140</td><td></td></tr> <tr><td>13C12 BDE 99</td><td>1000</td><td>13.00</td><td>75</td><td>30-140</td><td></td></tr> <tr><td>13C12 BDE 126</td><td>1000</td><td>14.06</td><td>82</td><td>30-140</td><td></td></tr> <tr><td>13C12 BDE 154</td><td>1000</td><td>14.45</td><td>76</td><td>30-140</td><td></td></tr> <tr><td>13C12 BDE 153</td><td>1000</td><td>15.19</td><td>74</td><td>30-140</td><td></td></tr> <tr><td>13C12 BDE 183</td><td>1000</td><td>17.34</td><td>68</td><td>30-140</td><td></td></tr> <tr><td>13C12 BDE 197</td><td>2000</td><td>19.76</td><td>79</td><td>30-140</td><td></td></tr> <tr><td>13C12 BDE 207</td><td>5000</td><td>21.51</td><td>64</td><td>30-140</td><td></td></tr> <tr><td>13C12 BDE 209</td><td>5000</td><td>23.64</td><td>87</td><td>20-200</td><td></td></tr> <tr> <td><b>Cleanup Standard</b></td> <td><b>pg</b></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr><td>13C12 BDE 138 Cleanup</td><td>2000</td><td>16.15</td><td>83</td><td>40-125</td><td></td></tr> </tbody> </table> |           |                                                                            |              |                                                                                    |       |  |                                         |  |                                                                                 | Target Analytes | pg | Ret. Time | % Rec | Limits | Flags | BDE 10 | 400 | 6.49 | 24 | 5-130 |  | BDE 7 | 400 | 6.86 | 43 | 5-130 |  | BDE 8/11 | 800 | 7.01 | 80 | 50-150 |  | BDE 12/13 | 800 | 7.14 | 69 | 5-130 |  | BDE 15 | 400 | 7.28 | 91 | 50-150 |  | BDE 30 | 400 | 7.98 | 49 | 5-130 |  | BDE 32 | 400 | 8.46 | 91 | 50-150 |  | BDE 17/25 | 800 | 8.63 | 103 | 50-150 |  | BDE 28/33 | 800 | 8.87 | 93 | 50-150 |  | BDE 35 | 400 | 9.03 | 113 | 50-150 |  | BDE 37 | 400 | 9.23 | 99 | 50-150 |  | PBEB | 400 | 9.24 | 108 | 50-150 |  | PBB 52 | 400 | 9.34 | 130 | 50-150 |  | HBB | 400 | 10.26 | 91 | 50-150 |  | BDE 75 | 400 | 10.31 | 82 | 50-150 |  | BDE 51 | 400 | 10.37 | 88 | 50-150 |  | BDE 49 | 400 | 10.47 | 86 | 50-150 |  | BDE 71 | 400 | 10.55 | 86 | 50-150 |  | BDE 47 | 400 | 10.82 | 100 | 50-150 |  | BDE 79 | 400 | 10.98 | 97 | 50-150 |  | BDE 66 | 400 | 11.11 | 93 | 50-150 |  | BDE 77 | 400 | 11.59 | 93 | 50-150 |  | PBB 101 | 800 | 11.74 | 96 | 50-150 |  | BDE 100 | 600 | 12.50 | 94 | 50-150 |  | BDE 119/120 | 1200 | 12.66 | 99 | 50-150 |  | BDE 99 | 600 | 13.00 | 97 | 50-150 |  | BDE 116 | 600 | 13.17 | 67 | 40-140 |  | BDE 83 | 600 | 13.29 | 88 | 50-150 |  | BDE 118 | 600 | 13.42 | 93 | 50-150 |  | BDE 85 | 600 | 13.92 | 100 | 50-150 |  | BDE 126 | 600 | 14.08 | 94 | 50-150 |  | BDE 105 | 600 | 14.24 | 94 | 50-150 |  | PBB 153 | 800 | 14.41 | 102 | 50-150 |  | BDE 155 | 800 | 14.08 | 91 | 50-150 |  | BDE 154 | 800 | 14.46 | 95 | 50-150 |  | BDE 153 | 800 | 15.19 | 93 | 50-150 |  | BDE 140 | 800 | 15.66 | 89 | 50-150 |  | BDE 138/166 | 1600 | 16.16 | 112 | 50-150 | M | BDE 156 | 800 | 16.54 | 108 | 50-150 |  | BDE 128 | 800 | 17.17 | 112 | 50-150 |  | BDE 184 | 1000 | 16.98 | 108 | 50-150 |  | BDE 183 | 1000 | 17.34 | 96 | 50-150 |  | BDE 191 | 1000 | 17.90 | 112 | 50-150 |  | BDE 181 | 1000 | 18.45 | 104 | 50-150 |  | BDE 190 | 1000 | 18.62 | 124 | 50-150 |  | PBB 180 | 800 | 17.45 | 98 | 50-150 |  | BDE 197 | 1000 | 19.76 | 93 | 50-150 |  | BDE 203 | 1000 | 20.00 | 111 | 50-150 |  | BDE 196 | 1000 | 20.13 | 94 | 50-150 |  | PBB 194 | 800 | 20.19 | 98 | 50-150 |  | BDE 208 | 2000 | 21.39 | 93 | 50-150 |  | BDE 207 | 2000 | 21.52 | 94 | 50-150 |  | BDE 206 | 2000 | 21.80 | 122 | 50-150 |  | PBB 206 | 2000 | 21.23 | 79 | 40-200 |  | PBB 209 | 2000 | 22.21 | 98 | 40-200 |  | BDE 209 | 2000 | 23.64 | 101 | 40-200 |  | <b>Extraction Standards</b> | <b>pg</b> |  | <b>% Rec</b> | <b>Limits</b> |  | 13C12 BDE 15 | 1000 | 7.27 | 60 | 25-150 |  | 13C12 BDE 28 | 1000 | 8.86 | 74 | 30-140 |  | 13C6 HBB | 1000 | 10.26 | 69 | 30-140 |  | 13C12 BDE 47 | 1000 | 10.81 | 74 | 30-140 |  | 13C12 BDE 77 | 1000 | 11.59 | 82 | 30-140 |  | 13C12 BDE 100 | 1000 | 12.49 | 69 | 30-140 |  | 13C12 BDE 99 | 1000 | 13.00 | 75 | 30-140 |  | 13C12 BDE 126 | 1000 | 14.06 | 82 | 30-140 |  | 13C12 BDE 154 | 1000 | 14.45 | 76 | 30-140 |  | 13C12 BDE 153 | 1000 | 15.19 | 74 | 30-140 |  | 13C12 BDE 183 | 1000 | 17.34 | 68 | 30-140 |  | 13C12 BDE 197 | 2000 | 19.76 | 79 | 30-140 |  | 13C12 BDE 207 | 5000 | 21.51 | 64 | 30-140 |  | 13C12 BDE 209 | 5000 | 23.64 | 87 | 20-200 |  | <b>Cleanup Standard</b> | <b>pg</b> |  |  |  |  | 13C12 BDE 138 Cleanup | 2000 | 16.15 | 83 | 40-125 |  |
| Target Analytes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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Time                                                                  | % Rec        | Limits                                                                             | Flags |  |                                         |  |                                                                                 |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |     |       |    |        |  |         |      |       |    |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |    |        |  |         |      |       |     |        |  |                             |           |  |              |               |  |              |      |      |    |        |  |              |      |      |    |        |  |          |      |       |    |        |  |              |      |       |    |        |  |              |      |       |    |        |  |               |      |       |    |        |  |              |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
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| BDE 8/11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 12/13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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| BDE 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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               |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 17/25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 28/33                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 35                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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               |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 37                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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| PBEB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| PBB 52                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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               |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| HBB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    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               |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 75                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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               |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 51                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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               |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 49                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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               |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 71                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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               |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 47                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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| BDE 79                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| BDE 66                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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| BDE 77                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| PBB 101                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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| BDE 100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 119/120                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 99                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 116                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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               |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 83                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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               |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 118                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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               |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 85                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 126                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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               |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         | 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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 105                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| PBB 153                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 155                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 154                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 153                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 140                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 138/166                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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               |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 156                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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               |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 128                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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| BDE 184                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 183                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 191                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 181                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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| BDE 190                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| PBB 180                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 197                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 203                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| BDE 196                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| PBB 194                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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| <b>Extraction Standards</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| 13C12 BDE 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| 13C12 BDE 28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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| 13C6 HBB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| 13C12 BDE 47                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| 13C12 BDE 77                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| 13C12 BDE 100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| 13C12 BDE 99                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| 13C12 BDE 126                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| 13C12 BDE 154                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| 13C12 BDE 153                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| 13C12 BDE 183                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| 13C12 BDE 197                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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               |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |     |       |    |        |  |         |      |       |    |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |    |        |  |         |      |       |     |        |  |                             |           |  |              |               |  |              |      |      |    |        |  |              |      |      |    |        |  |          |      |       |    |        |  |              |      |       |    |        |  |              |      |       |    |        |  |               |      |       |    |        |  |              |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| 13C12 BDE 207                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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               |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |     |       |    |        |  |         |      |       |    |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |    |        |  |         |      |       |     |        |  |                             |           |  |              |               |  |              |      |      |    |        |  |              |      |      |    |        |  |          |      |       |    |        |  |              |      |       |    |        |  |              |      |       |    |        |  |               |      |       |    |        |  |              |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| 13C12 BDE 209                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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               |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| <b>Cleanup Standard</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>pg</b> |                                                                            |              |                                                                                    |       |  |                                         |  |                                                                                 |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |     |       |    |        |  |         |      |       |    |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |    |        |  |         |      |       |     |        |  |                             |           |  |              |               |  |              |      |      |    |        |  |              |      |      |    |        |  |          |      |       |    |        |  |              |      |       |    |        |  |              |      |       |    |        |  |               |      |       |    |        |  |              |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| 13C12 BDE 138 Cleanup                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2000      | 16.15                                                                      | 83           | 40-125                                                                             |       |  |                                         |  |                                                                                 |                 |    |           |       |        |       |        |     |      |    |       |  |       |     |      |    |       |  |          |     |      |    |        |  |           |     |      |    |       |  |        |     |      |    |        |  |        |     |      |    |       |  |        |     |      |    |        |  |           |     |      |     |        |  |           |     |      |    |        |  |        |     |      |     |        |  |        |     |      |    |        |  |      |     |      |     |        |  |        |     |      |     |        |  |     |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |     |        |  |        |     |       |    |        |  |        |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |
| <div> M Indicates that a peak has been manually integrated. </div> <div> R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion. </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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    |       |    |        |  |             |      |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |    |        |  |         |     |       |    |        |  |        |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |     |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |         |     |       |    |        |  |             |      |       |     |        |   |         |     |       |     |        |  |         |     |       |     |        |  |         |      |       |     |        |  |         |      |       |    |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |      |       |     |        |  |         |     |       |    |        |  |         |      |       |    |        |  |     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|    |        |  |               |      |       |    |        |  |               |      |       |    |        |  |                         |           |  |  |  |  |                       |      |       |    |        |  |



# Chain of Custody Record

This Chain of Custody is a LEGAL DOCUMENT and must be filled out accurately.

## Section A

### Required Client Information

|                                                                                                                                      |                                            |
|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Company:                                                                                                                             | Grants Pass City of Water Filtration Plant |
| Address:                                                                                                                             | 821 SE M Street                            |
|                                                                                                                                      | Grants Pass, OR 97526                      |
| Email:                                                                                                                               | asmith@grantspassoregon.gov                |
| Phone:                                                                                                                               | 541-450-6119                               |
|                                                                                                                                      | Fax:                                       |
| Collected By (Print):                                                                                                                |                                            |
| Collected By (Sign):                                                                                                                 |                                            |
| Email Report <input checked="" type="checkbox"/> Mail Report <input checked="" type="checkbox"/> Fax Report <input type="checkbox"/> |                                            |

## Section B

### Required Project Information

|                 |                            |
|-----------------|----------------------------|
| Project Name:   | Bear Creek Greenway Bridge |
| Project Number: | by US Cellular Park        |
| Report To:      | Adam B Smith               |
| Copy To:        |                            |

## Section C

### Invoice Information

|               |  |
|---------------|--|
| Attention:    |  |
| Company Name: |  |
| Address:      |  |

## Section D

### Rush Status (Subject to Scheduling)

|                                                                     |                                         |
|---------------------------------------------------------------------|-----------------------------------------|
| <input checked="" type="checkbox"/>                                 | Priority: 5 Business Days (List x 1.50) |
| <input type="checkbox"/>                                            | Express: 3 Business Days (List x 1.75)  |
| <input type="checkbox"/>                                            | Rush: 2 Business Days (List x 2.00)     |
| <input type="checkbox"/>                                            | Rush: Same Day (List x 3.00)            |
| Authorized Yes <input type="checkbox"/> No <input type="checkbox"/> |                                         |

## Section E

### Sample Information

| Sample ID            | Compl/Grab | Matrix* | Date Collected | Time Collected |
|----------------------|------------|---------|----------------|----------------|
| Bear Creek Top 35    | Grab       | W       | 11/15/20       | 16:00          |
| Bear Creek Cyanide   | Grab       | W       |                | 15:40          |
| Bear Creek HG        | Grab       | W       |                | 16:10          |
| Bear Creek TSS       | Grab       | W       |                | 16:15          |
| Bear Creek TKN Tphos | Grab       | W       |                | 16:20          |
| Bear Creek VOC       | Grab       | W       |                | 15:30          |
| Bear Creek TOC       | Grab       | W       |                | 15:35          |
| Bear Creek PAHs      | Grab       | W       |                | 16:25          |
| Bear Creek Diox Fura | Grab       | W       |                | 16:30          |
| Bear Creek 508       | Grab       | W       |                | 15:50          |

| Analysis Requested |                  |               |          |      |                   |                       |          |               |       |
|--------------------|------------------|---------------|----------|------|-------------------|-----------------------|----------|---------------|-------|
| No. of Containers  | HQ, TSS, Cyanide | TKN and Tphos | VOC, TOC | PAHs | Dioxin and Furans | 508, E. Coli Bacteria | Asbestos | PFOS and PFAS | PBDEs |
| 1                  | X                |               |          |      |                   |                       |          |               |       |
| 1                  | X                |               |          |      |                   |                       |          |               |       |
| 1                  | X                |               |          |      |                   |                       |          |               |       |
| 1                  | X                |               |          |      |                   |                       |          |               |       |
| 1                  | X                |               |          |      |                   |                       |          |               |       |
| 5                  |                  | X             |          |      |                   |                       |          |               |       |
| 3                  |                  | X             |          |      |                   |                       |          |               |       |
| 3                  |                  |               | X        |      |                   |                       |          |               |       |
| 2                  |                  | X             |          |      |                   |                       |          |               |       |
| 3                  |                  |               |          |      | X                 |                       |          |               |       |

NRC Workorder # 20110721

| Remarks / Field Data | NRC Sample # (Lab Use Only) |
|----------------------|-----------------------------|
|                      | 01                          |

\*Matrix: DW - Drinking Water WW - Wastewater W - Water S - Soil/Solid SL - Sludge O - Oil WP - Wipe OT - Other

## Section F

### Relinquish/Receive

|                         |  |      |
|-------------------------|--|------|
| Relinquished By:        |  | Sign |
| Received By:            |  |      |
| Relinquished By:        |  |      |
| Received By:            |  |      |
| Relinquished By:        |  |      |
| Received By Laboratory: |  |      |

### Print

|      |          |      |      |
|------|----------|------|------|
| Date | 11/16/20 | Time | 1142 |
| Date | 11/16/20 | Time | 142  |

## Section G

### Lab Use Only

|                             |                                                                                                                                                                                            |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Temp:                       | 4°C +/- 2°C: Yes <input type="checkbox"/> No <input type="checkbox"/>                                                                                                                      |
| Received on Ice:            | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>                                                                                                                        |
| Number of Bottles Received: |                                                                                                                                                                                            |
| pH Checked:                 | N/A                                                                                                                                                                                        |
| COC Seals Intact:           | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA                                                                                                                     |
| Field Blank Included:       | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>                                                                                                                        |
| Received Via:               | UPS <input type="checkbox"/> FedEX <input type="checkbox"/> Other <input checked="" type="checkbox"/> Hand                                                                                 |
| Payment:                    | Invoice <input type="checkbox"/> Cash <input type="checkbox"/> VISA <input type="checkbox"/> M/C <input type="checkbox"/> Check # <input type="checkbox"/> Amount <input type="checkbox"/> |



## Chain of Custody Record

This Chain of Custody is a LEGAL DOCUMENT and must be filled out accurately.

### Section A

#### Required Client Information

|                                                                                                                                      |                                            |
|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Company:                                                                                                                             | Grants Pass City of Water Filtration Plant |
| Address:                                                                                                                             | 821 SE M Street<br>Grants Pass, OR 97526   |
| Email:                                                                                                                               | asmith@grantspassoregon.gov                |
| Phone:                                                                                                                               | 541-450-6119                               |
| Collected By (Print):                                                                                                                |                                            |
| Collected By (Sign):                                                                                                                 |                                            |
| Email Report <input checked="" type="checkbox"/> Mail Report <input checked="" type="checkbox"/> Fax Report <input type="checkbox"/> |                                            |

### Section B

#### Required Project Information

|                 |                            |
|-----------------|----------------------------|
| Project Name:   | Bear Creek Greenway Bridge |
| Project Number: | by US Cellular Park        |
| Report To:      | Adam B Smith               |
| Copy To:        |                            |

### Section C

#### Invoice Information

|               |  |
|---------------|--|
| Attention:    |  |
| Company Name: |  |
| Address:      |  |

### Section D

#### Rush Status (Subject to Scheduling)

|                                                                         |  |
|-------------------------------------------------------------------------|--|
| <input checked="" type="checkbox"/> Rush Status (Subject to Scheduling) |  |
| <input type="checkbox"/> Priority: 5 Business Days (List x 1.50)        |  |
| <input type="checkbox"/> Express: 3 Business Days (List x 1.75)         |  |
| <input type="checkbox"/> Rush: 2 Business Days (List x 2.00)            |  |
| <input type="checkbox"/> Rush: Same Day (List x 3.00)                   |  |
| Authorized <input type="checkbox"/> Yes <input type="checkbox"/> No     |  |

### Analysis Requested

| No. of Containers | Top 35 | HQ, TSS, Cyanide | TKN and Tphos | VOC, TOC | PAHs | Dioxin and Furans | 508, in Coll Bottles | Asbestos | PFOS and PFAS | PBDEs |
|-------------------|--------|------------------|---------------|----------|------|-------------------|----------------------|----------|---------------|-------|
| 1                 |        |                  |               |          |      |                   | X                    | X        |               |       |
| 2                 |        |                  |               |          |      |                   |                      | X        |               |       |
| 1                 |        |                  |               |          |      |                   |                      |          | X             |       |
| 1                 |        |                  |               |          |      |                   |                      |          | X             |       |
| 2                 |        |                  |               |          |      |                   |                      |          |               | X     |

### Section E

#### Sample Information

| Sample ID           | Comp/Grab | Matrix* | Date Collected | Time Collected |
|---------------------|-----------|---------|----------------|----------------|
| Bear Creek E. Coll  | Grab      | W       | 11/15/20       | 15:55          |
| Bear Creek Asbestos | Grab      | W       |                | 16:35          |
| Bear Creek PFAS     | Grab      | W       |                | 16:40          |
| Bear Creek PFOS     | Grab      | W       |                | 16:45          |
| Bear Creek PBDEs    | Grab      | W       |                | 15:45          |

### Section F

| Remarks / Field Data | NRC Sample # (Lab Use Only) |
|----------------------|-----------------------------|
|                      | 20110721                    |

\*Matrix: DW - Drinking Water WW - Wastewater W - Water S - Soil/Solid SL - Sludge O - Oil WP - Wipe OT - Other

### Section F

#### Relinquish/Receive

|                  |                    |      |  |
|------------------|--------------------|------|--|
| Relinquished By: | <i>[Signature]</i> | Sign |  |
| Received By:     |                    | Sign |  |
| Relinquished By: |                    | Sign |  |
| Received By:     |                    | Sign |  |
| Relinquished By: |                    | Sign |  |
| Received By:     |                    | Sign |  |

### Section G

|       |                    |      |       |
|-------|--------------------|------|-------|
| Date  | 11/16/20           | Time | 11:47 |
| Print | <i>[Signature]</i> |      |       |

### Section H

|                             |                                                                                                                                                            |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Temp:                       | 4°C +/- 2°C: <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                      |
| Received on Ice:            | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                                                                        |
| Number of Bottles Received: |                                                                                                                                                            |
| pH Checked:                 | NA                                                                                                                                                         |
| COC Seals Intact:           | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                                                                        |
| Field Blank Included:       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                                                                        |
| Received Via:               | UPS <input type="checkbox"/> FedEX <input type="checkbox"/> Other <input checked="" type="checkbox"/> Hand                                                 |
| Payment:                    | Cash <input type="checkbox"/> VISA <input type="checkbox"/> MIC <input type="checkbox"/> Check # <input type="checkbox"/> Amount: <input type="checkbox"/> |



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Medford, OR 97501  
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Website: [www.nrclabs.com](http://www.nrclabs.com)

## Data Flags

WO#: 20110721  
Date: 1/11/2021

- B Analyte detected in the associated method blank.
- BA BOD Alternative Calculation: The initial results performed by Standard Methods did not fall within parameters of the Standard Methods calculation. An alternate approved calculation was performed using the HACH method and the value reported is an estimated concentration.
- C Sample(s) does not meet NELAP/ORELAP sample acceptance criteria. See Case Narrative.
- C1 Sample(s) does not meet NELAP/ORELAP sample acceptance criteria for temperature.
- CF Results confirmed by re-analysis.
- CU Cleanup performed as specified by method.
- D1 The diesel elution pattern for the sample is not typical.
- D2 The sample appears to be a heavier hydrocarbon range than diesel.
- D3 The sample appears to be a lighter hydrocarbon range than diesel.
- D4 Detected hydrocarbons do not have pattern and range consistent with typical petroleum products and may be due to biogenic interference.
- D5 Detected hydrocarbons in the diesel range appear to be weathered diesel.
- E Estimated value.
- ER Elevated reporting limit due to matrix. Report limits (MDLs, MRLs & PQLs) are adjusted based on variations in sample preparation amounts, analytical dilutions, and percent solids, where applicable.
- FC Fecal Coliforms: Sample(s) received past 40 CFR Part 136 specified holding time. Results reported as estimated values.
- G1 The gasoline elution pattern for the sample is not typical.
- G2 The sample appears to be a heavier hydrocarbon range than gasoline.
- G3 The sample appears to be a lighter hydrocarbon range than gasoline.
- G4 Detected hydrocarbons in the gasoline range appear to be weathered gasoline.
- HP Sample re-analysis performed outside of method specified holding time.
- HR Sample received outside of method specified holding time.
- HS Sample analyzed for volatile organics contained headspace.
- HT ☐ At the client's request, the sample was analyzed outside of method specified holding time.
- H Analysis performed outside of method specified holding time.
- J Analyte detected below the Minimum Reporting Limit (MRL) and above the Method Detection Limit (MDL). The J flag result is an estimated value and the user should be aware that this data is of limited reliability.
- L Dissolved metals were not filtered within 15 minutes of collection per 40 CFR Part 136.
- MI Surrogate, Duplicate Sample (DUP) or Matrix Spikes recoveries are out of control limits due to matrix interference. Sample results may be biased.
- N See Case Narrative on page 2 of report.
- NLR No Legionella Recovered.
- PLR Presence of Legionella Recovered.
- Q Initial calibration verification (ICV), continuing calibration verification (CCV) or laboratory control sample (LCS) exceeded high recovery limits, but associated samples are non-detect and the sample results are not affected. Data meets EPA/NELAP requirements.
- R Relative percent difference (RPD) is outside of the accepted recovery limits.
- R1 Relative percent difference (RPD) is outside of the accepted recovery limits. However, analyses are not controlled on RPD values for sample concentrations that are less than the reporting limit.
- R3 The relative percent difference (RPD) and/or percent recovery for the duplicate (DUP) or matrix spike (MS)/matrix spike duplicate (MSD) cannot be accurately calculated due to the concentration of analyte already present in the sample.
- R4 Duplicate analysis failed due to result being at or near the method reporting limit.
- S Surrogate and/or matrix spike recovery is outside of the accepted recovery limits. Sample results may be biased.
- S1 Surrogate or matrix spike recovery is outside of control limits due to dilution necessary for analysis.
- SC Sub-contracted to another laboratory for analysis.
- SP Sample(s) were not collected per EPA Method 5035A protocols. The results are considered minimum values.
- # Value exceeds regulatory level for TCLP contaminant.
- X1 The motor oil elution pattern for the sample is not typical.
- X2 The sample appears to be a heavier hydrocarbon range than motor oil.
- X3 The sample appears to be a lighter hydrocarbon range than motor oil.
- \* Value exceeds Maximum Contaminant Level or is outside the acceptable range.

Original





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January 27, 2021

Adam Smith  
Grants Pass Water Filtration  
821 SE M Street  
Grants Pass, OR 97526  
TEL: (541) 450-6119  
FAX

RE: Bear Creek Greenway Bridge by US Cell

Order No.: 20120951

Dear Adam Smith:

Neilson Research Corporation received 1 sample(s) on 12/17/2020 for the analyses presented in the following report.

The results relate only to the parameters tested or to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of Neilson Research Corporation. If you have any questions regarding these test results, please feel free to call.

Sincerely,  
Neilson Research Corporation

Tamra Schmedemann  
Senior Project Manager  
245 S Grape St  
Medford, OR 97501



Original





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Medford, OR 97501  
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Website: [www.nrclabs.com](http://www.nrclabs.com)

## Case Narrative

WO#: 20120951  
Date: 1/27/2021

---

**CLIENT:** Grants Pass Water Filtration

**Project:** Bear Creek Greenway Bridge by US Cell

---

The analyses were performed according to the guidelines in the Neilson Research Corporation Quality Assurance Program. This report contains analytical results for the sample(s) as received by the laboratory.

Neilson Research Corporation certifies that this report is in compliance with the requirements of NELAP. No unusual difficulties were experienced during analysis of this batch except as noted below or qualified with data flags on the reports.

### GENERAL CHEMISTRY

#### Holding Time

Acceptance criteria were met

#### Digestion Exceptions:

None

#### Analysis:

- A. Method Blank(s): MB  
MB criteria were met.
- B. Matrix Spike Sample(s): MS  
MS criteria were met
- C. Duplicate Sample(s) Dup and/or MSD  
Dup and/or MSD criteria were met
- D. Lab Control Sample(s) LCS  
LCS criteria were met

Asbestos analyses performed by LabCor Seattle, 7619 6th Avenue NW, Seattle WA 98117, ORELAP ID WA200003. A copy of the report is enclosed.

---

Original



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## Case Narrative

WO#: 20120951  
Date: 1/27/2021

---

**CLIENT:** Grants Pass Water Filtration

**Project:** Bear Creek Greenway Bridge by US Cell

---

EPA 1613B Dioxin Furans analysis subcontracted to Appl Labs, 908 N Temperance Ave., Clovis, CA 93611. NELAP-CA 00046. A copy of the report is attached.

PFAS analysis subcontracted to Appl Labs, 908 N Temperance Ave., Clovis, CA 93611. NELAP-CA 00046. A copy of the report is attached.

PBDE analysis subcontracted to ALS Life Sciences, 1435 Norjohn Court, Unit 1, Burlington, ON, Canada L7L 0E6. A copy of the report is attached.

---

Original



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Website: [www.nrclabs.com](http://www.nrclabs.com)

## Analytical Report

WO#: 20120951  
Date Reported: 1/27/2021

Grants Pass Water Filtration  
821 SE M Street  
Grants Pass, OR 97526

Lab ID: 20120951-01  
Collection Date: 12/17/2020 8:10:00 AM  
Received Date: 12/17/2020 10:57:00 AM

Sample Information:

Client Sample ID: Bear Creek Greenway Bridg  
Sample Collector: Adam B Smith  
Matrix: AQUEOUS  
Source: Bear Creek  
Sample Location: Grab

## Top 35 Analysis<sup>TM</sup>

| Analyses                   | Method | NELAP Status | Result  | Qual | DF | RL       | Units | EPA Limit | Date Analyzed  | Analyst |
|----------------------------|--------|--------------|---------|------|----|----------|-------|-----------|----------------|---------|
| Aluminum                   | E200.7 | A            | 3.12    | *    | 1  | 0.0200   | mg/L  | 0.200     | 12/22/20 17:37 | SJS     |
| Antimony                   | E200.8 | A            | ND      |      | 1  | 0.000500 | mg/L  | 0.00600   | 12/19/20 18:57 | SJS     |
| Arsenic                    | E200.8 | A            | 0.00150 |      | 1  | 0.00100  | mg/L  | 0.0100    | 12/19/20 18:57 | SJS     |
| Barium                     | E200.8 | A            | 0.0622  |      | 1  | 0.000500 | mg/L  | 2.00      | 12/19/20 18:57 | SJS     |
| Beryllium                  | E200.7 | A            | ND      |      | 1  | 0.000500 | mg/L  | 0.00400   | 12/22/20 17:37 | SJS     |
| Boron                      | E200.7 | A            | 0.506   |      | 1  | 0.0500   | mg/L  |           | 12/22/20 17:37 | SJS     |
| Cadmium                    | E200.8 | A            | ND      |      | 1  | 0.000100 | mg/L  | 0.00500   | 12/19/20 18:57 | SJS     |
| Calcium                    | E200.7 | A            | 29.6    |      | 1  | 1.00     | mg/L  |           | 12/22/20 17:37 | SJS     |
| Chloride                   | E300.0 | A            | 14.9    |      | 1  | 1.00     | mg/L  | 250       | 12/17/20 18:00 | KEC     |
| Chromium                   | E200.8 | A            | 0.00276 |      | 1  | 0.00100  | mg/L  | 0.100     | 12/19/20 18:57 | SJS     |
| Copper                     | E200.7 | A            | ND      |      | 1  | 0.0100   | mg/L  | 1.30      | 12/22/20 17:37 | SJS     |
| Fluoride                   | E300.0 | A            | ND      |      | 1  | 0.200    | mg/L  | 4.00      | 12/17/20 18:00 | KEC     |
| Hardness, Total (As CaCO3) | A2340B | A            | 115     |      | 1  | 6.62     | mg/L  | 250       | 12/22/20 17:37 | SJS     |
| Iron                       | E200.7 | A            | 3.46    | *    | 1  | 0.0150   | mg/L  | 0.300     | 12/22/20 17:37 | SJS     |
| Lead                       | E200.8 | A            | 0.00193 |      | 1  | 0.000100 | mg/L  | 0.0150    | 12/19/20 18:57 | SJS     |
| Lithium                    | E200.7 | A            | ND      |      | 1  | 0.100    | mg/L  |           | 12/22/20 17:37 | SJS     |
| Magnesium                  | E200.7 | A            | 9.88    |      | 1  | 1.00     | mg/L  |           | 12/22/20 17:37 | SJS     |
| Manganese                  | E200.7 | A            | 0.333   | *    | 1  | 0.0200   | mg/L  | 0.0500    | 12/22/20 17:37 | SJS     |
| Molybdenum                 | E200.8 | A            | ND      |      | 1  | 0.00100  | mg/L  |           | 12/19/20 18:57 | SJS     |
| Nickel                     | E200.8 | A            | 0.00324 |      | 1  | 0.000500 | mg/L  | 0.100     | 12/19/20 18:57 | SJS     |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

C1 Sample container temperature is out of limit as specified at testcod  
H Holding times for preparation or analysis exceeded  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

### NELAP

NELAP A Accredited in accordance with NELAP ORELAP 100016, OR-028

Original

Results are out of the EPA limits



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## Analytical Report

WO#: 20120951  
Date Reported: 1/27/2021

Grants Pass Water Filtration  
821 SE M Street  
Grants Pass, OR 97526

Lab ID: 20120951-01  
Collection Date: 12/17/2020 8:10:00 AM  
Received Date: 12/17/2020 10:57:00 AM

Sample Information:

Client Sample ID: Bear Creek Greenway Bridge  
Sample Collector: Adam B Smith  
Matrix: AQUEOUS  
Source: Bear Creek  
Sample Location: Grab

## Top 35 Analysis<sup>TM</sup>

| Analyses             | Method    | NELAP Status | Result   | Qual | DF | RL       | Units    | EPA Limit | Date Analyzed  | Analyst |
|----------------------|-----------|--------------|----------|------|----|----------|----------|-----------|----------------|---------|
| Nitrogen, Nitrate    | E300.0    | A            | 0.744    |      | 1  | 0.200    | mg/L     | 10.0      | 12/17/20 18:00 | KEC     |
| Nitrogen, Nitrite    | E300.0    | A            | ND       |      | 1  | 0.0500   | mg/L     | 1.00      | 12/17/20 18:00 | KEC     |
| pH                   | A4500-H+B | A            | 7.75     |      | 1  | 0.10     | pH Units | 6.50-8.50 | 12/17/20 17:10 | DLM     |
| Potassium            | E200.7    | A            | 3.87     |      | 1  | 1.00     | mg/L     |           | 12/22/20 17:37 | SJS     |
| Selenium             | E200.8    | A            | ND       |      | 1  | 0.00100  | mg/L     | 0.0500    | 12/19/20 18:57 | SJS     |
| Silica               | E200.7    | A            | 28.6     |      | 1  | 2.14     | mg/L     |           | 12/22/20 17:37 | SJS     |
| Silver               | E200.8    | A            | ND       |      | 1  | 0.000500 | mg/L     | 0.100     | 12/19/20 18:57 | SJS     |
| Sodium               | E200.7    | A            | 20.6     |      | 1  | 1.00     | mg/L     | 200       | 12/22/20 17:37 | SJS     |
| Specific Conductance | A2510B    | A            | 305      |      | 1  | 1.00     | µmhos/cm |           | 12/17/20 17:10 | DLM     |
| Sulfate              | E300.0    | A            | 16.9     |      | 1  | 0.500    | mg/L     | 250       | 12/17/20 18:00 | KEC     |
| Thallium             | E200.8    | A            | ND       |      | 1  | 0.000500 | mg/L     | 0.00200   | 12/19/20 18:57 | SJS     |
| Turbidity            | A2130     | A            | 12.8     | *    | 1  | 0.100    | NTU      | 1.00-5.00 | 12/17/20 17:29 | DLM     |
| Uranium              | E200.8    | A            | 0.000607 |      | 1  | 0.000100 | mg/L     | 0.0300    | 12/19/20 18:57 | SJS     |
| Vanadium             | E200.8    | A            | 0.00933  |      | 1  | 0.00500  | mg/L     |           | 12/19/20 18:57 | SJS     |
| Zinc                 | E200.7    | A            | ND       |      | 1  | 0.0500   | mg/L     | 5.00      | 12/22/20 17:37 | SJS     |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

C1 Sample container temperature is out of limit as specified at testcod  
H Holding times for preparation or analysis exceeded  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

### NELAP

NELAP A Accredited in accordance with NELAP ORELAP 100016, OR-028

Original

Results are out of the EPA limits



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## Analytical Report

WO#: 20120951  
Date Reported: 1/27/2021

**CLIENT:** Grants Pass Water Filtration  
**Lab ID:** 20120951-01  
**Client Sample ID** Bear Creek Greenway Bridge  
**Project:** Bear Creek Greenway Bridge by US Cell  
**Sample Address:**

**Collection Date:** 12/17/2020 8:10:00 AM  
**Received Date:** 12/17/2020 10:57:00 AM  
**Matrix:** AQUEOUS

**Sample Location:** Grab

| Analyses               | Method     | NELAP Status | Result | Qual | DF | RL       | Units | MCL | Date Analyzed/Analyst |
|------------------------|------------|--------------|--------|------|----|----------|-------|-----|-----------------------|
| <b>PAH BY SIM</b>      |            |              |        |      |    |          |       |     |                       |
| Acenaphthene           | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 12/18/20 15:26 TJW    |
| Acenaphthylene         | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 12/18/20 15:26 TJW    |
| Anthracene             | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 12/18/20 15:26 TJW    |
| Benzo(a)anthracene     | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 12/18/20 15:26 TJW    |
| Benzo(a)pyrene         | EPA 8270 C | A            | 0.540  |      | 1  | 0.500    | µg/L  |     | 12/18/20 15:26 TJW    |
| Benzo(b)fluoranthene   | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 12/18/20 15:26 TJW    |
| Benzo(g,h,i)perylene   | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 12/18/20 15:26 TJW    |
| Benzo(k)fluoranthene   | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 12/18/20 15:26 TJW    |
| Chrysene               | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 12/18/20 15:26 TJW    |
| Dibenz(a,h)anthracene  | EPA 8270 C | A            | ND     |      | 1  | 1.00     | µg/L  |     | 12/18/20 15:26 TJW    |
| Fluoranthene           | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 12/18/20 15:26 TJW    |
| Fluorene               | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 12/18/20 15:26 TJW    |
| Indeno(1,2,3-cd)pyrene | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 12/18/20 15:26 TJW    |
| Naphthalene            | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 12/18/20 15:26 TJW    |
| Phenanthrene           | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 12/18/20 15:26 TJW    |
| Pyrene                 | EPA 8270 C | A            | ND     |      | 1  | 0.500    | µg/L  |     | 12/18/20 15:26 TJW    |
| Surr: 2-Fluorobiphenyl | EPA 8270 C |              | 77.4   |      | 1  | 63 - 110 | %Rec  |     | 12/18/20 15:26 TJW    |
| Surr: 4-Terphenyl-d14  | EPA 8270 C |              | 94.5   |      | 1  | 68 - 110 | %Rec  |     | 12/18/20 15:26 TJW    |

### VOLATILE ORGANICS BY EPA 524.2

|                                   |           |   |    |  |   |          |      |         |                   |
|-----------------------------------|-----------|---|----|--|---|----------|------|---------|-------------------|
| 1,1,1-Trichloroethane (1,1,1-TCA) | EPA 524.2 | A | ND |  | 1 | 0.000500 | mg/L | 0.200   | 12/18/20 2:28 CSB |
| 1,1,2-Trichloroethane             | EPA 524.2 | A | ND |  | 1 | 0.000500 | mg/L | 0.00500 | 12/18/20 2:28 CSB |
| 1,1-Dichloroethylene              | EPA 524.2 | A | ND |  | 1 | 0.000500 | mg/L | 0.00700 | 12/18/20 2:28 CSB |
| 1,2,4-Trichlorobenzene            | EPA 524.2 | A | ND |  | 1 | 0.000500 | mg/L | 0.0700  | 12/18/20 2:28 CSB |
| 1,2-Dichloroethane (EDC)          | EPA 524.2 | A | ND |  | 1 | 0.000500 | mg/L | 0.00500 | 12/18/20 2:28 CSB |
| 1,2-Dichloropropane               | EPA 524.2 | A | ND |  | 1 | 0.000500 | mg/L | 0.00500 | 12/18/20 2:28 CSB |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

Revision v1

NELAP A Accredited in accordance with NELAP ORELAP 100016, OR-028



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Website: [www.nrclabs.com](http://www.nrclabs.com)

## Analytical Report

WO#: 20120951  
Date Reported: 1/27/2021

**CLIENT:** Grants Pass Water Filtration  
**Lab ID:** 20120951-01  
**Client Sample ID** Bear Creek Greenway Bridge  
**Project:** Bear Creek Greenway Bridge by US Cell  
**Sample Address:**

**Collection Date:** 12/17/2020 8:10:00 AM  
**Received Date:** 12/17/2020 10:57:00 AM  
**Matrix:** AQUEOUS

**Sample Location:** Grab

| Analyses                              | Method    | NELAP Status | Result | Qual | DF | RL       | Units | MCL     | Date Analyzed/Analyst |
|---------------------------------------|-----------|--------------|--------|------|----|----------|-------|---------|-----------------------|
| <b>VOLATILE ORGANICS BY EPA 524.2</b> |           |              |        |      |    |          |       |         |                       |
| Benzene                               | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.00500 | 12/18/20 2:28 CSB     |
| Carbon tetrachloride                  | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.00500 | 12/18/20 2:28 CSB     |
| cis-1,2-Dichloroethene                | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.0700  | 12/18/20 2:28 CSB     |
| Dichloromethane                       | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.00500 | 12/18/20 2:28 CSB     |
| Ethylbenzene                          | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.700   | 12/18/20 2:28 CSB     |
| Monochlorobenzene                     | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.100   | 12/18/20 2:28 CSB     |
| o-Dichlorobenzene                     | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.600   | 12/18/20 2:28 CSB     |
| p-Dichlorobenzene                     | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.0750  | 12/18/20 2:28 CSB     |
| Styrene                               | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.100   | 12/18/20 2:28 CSB     |
| Tetrachloroethene (PCE)               | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.00500 | 12/18/20 2:28 CSB     |
| Toluene                               | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 1.00    | 12/18/20 2:28 CSB     |
| trans-1,2-Dichloroethylene            | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.100   | 12/18/20 2:28 CSB     |
| Trichloroethene (TCE)                 | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.00500 | 12/18/20 2:28 CSB     |
| Vinyl chloride                        | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 0.00200 | 12/18/20 2:28 CSB     |
| Xylenes, Total                        | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  | 10.0    | 12/18/20 2:28 CSB     |
| 1,1,1,2-Tetrachloroethane             | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 12/18/20 2:28 CSB     |
| 1,1,2,2-Tetrachloroethane             | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 12/18/20 2:28 CSB     |
| 1,1-Dichloroethane                    | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 12/18/20 2:28 CSB     |
| 1,1-Dichloropropene                   | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 12/18/20 2:28 CSB     |
| 1,2,3-Trichloropropane                | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 12/18/20 2:28 CSB     |
| 1,3-Dichloropropane                   | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 12/18/20 2:28 CSB     |
| 1,3-Dichloropropene                   | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 12/18/20 2:28 CSB     |
| 2,2-Dichloropropane                   | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 12/18/20 2:28 CSB     |
| Bromobenzene                          | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 12/18/20 2:28 CSB     |
| Bromodichloromethane                  | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 12/18/20 2:28 CSB     |
| Bromoform                             | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 12/18/20 2:28 CSB     |
| Bromomethane                          | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 12/18/20 2:28 CSB     |
| Chloroethane                          | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |         | 12/18/20 2:28 CSB     |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

C1 Sample container temperature is out of limit as specified at testcode  
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Revision v1

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## Analytical Report

WO#: 20120951

Date Reported: 1/27/2021

**CLIENT:** Grants Pass Water Filtration  
**Lab ID:** 20120951-01  
**Client Sample ID** Bear Creek Greenway Bridge  
**Project:** Bear Creek Greenway Bridge by US Cell  
**Sample Address:**

**Collection Date:** 12/17/2020 8:10:00 AM  
**Received Date:** 12/17/2020 10:57:00 AM  
**Matrix:** AQUEOUS

**Sample Location:** Grab

| Analyses                              | Method    | NELAP Status | Result | Qual | DF | RL       | Units | MCL | Date Analyzed/Analyst |
|---------------------------------------|-----------|--------------|--------|------|----|----------|-------|-----|-----------------------|
| <b>VOLATILE ORGANICS BY EPA 524.2</b> |           |              |        |      |    |          |       |     |                       |
| Chloroform                            | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |     | 12/18/20 2:28 CSB     |
| Chloromethane                         | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |     | 12/18/20 2:28 CSB     |
| Dibromochloromethane                  | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |     | 12/18/20 2:28 CSB     |
| Dibromomethane                        | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |     | 12/18/20 2:28 CSB     |
| m-Dichlorobenzene                     | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |     | 12/18/20 2:28 CSB     |
| Methyl tert-butyl ether               | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |     | 12/18/20 2:28 CSB     |
| o-Chlorotoluene                       | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |     | 12/18/20 2:28 CSB     |
| p-Chlorotoluene                       | EPA 524.2 | A            | ND     |      | 1  | 0.000500 | mg/L  |     | 12/18/20 2:28 CSB     |
| Surr:                                 | EPA 524.2 |              | 97.2   |      | 1  | 80 - 120 | %Rec  |     | 12/18/20 2:28 CSB     |
| Dibromofluoromethane                  |           |              |        |      |    |          |       |     |                       |
| Surr: Toluene-d8                      | EPA 524.2 |              | 98.8   |      | 1  | 80 - 120 | %Rec  |     | 12/18/20 2:28 CSB     |
| Surr: 4-Bromofluorobenzene            | EPA 524.2 |              | 100    |      | 1  | 80 - 120 | %Rec  |     | 12/18/20 2:28 CSB     |

### CHLORINATED PESTICIDES/PCBS

|                                  |         |   |     |    |   |           |      |          |                    |
|----------------------------------|---------|---|-----|----|---|-----------|------|----------|--------------------|
| Aldrin                           | EPA 508 | A | ND  |    | 1 | 0.0000100 | mg/L |          | 12/22/20 18:19 TJW |
| Chlordane                        | EPA 508 | A | ND  |    | 1 | 0.000250  | mg/L | 0.00200  | 12/22/20 18:19 TJW |
| Dieldrin                         | EPA 508 | A | ND  |    | 1 | 0.0000100 | mg/L |          | 12/22/20 18:19 TJW |
| Endrin                           | EPA 508 | A | ND  |    | 1 | 0.0000100 | mg/L | 0.00200  | 12/22/20 18:19 TJW |
| gamma-BHC (Lindane)              | EPA 508 | A | ND  |    | 1 | 0.0000100 | mg/L | 0.000200 | 12/22/20 18:19 TJW |
| Heptachlor                       | EPA 508 | A | ND  |    | 1 | 0.0000100 | mg/L | 0.000400 | 12/22/20 18:19 TJW |
| Heptachlor epoxide               | EPA 508 | A | ND  |    | 1 | 0.0000100 | mg/L | 0.000200 | 12/22/20 18:19 TJW |
| Methoxychlor                     | EPA 508 | A | ND  | MI | 1 | 0.000100  | mg/L | 0.0400   | 12/22/20 18:19 TJW |
| Polychlorinated Biphenyls (PCBs) | EPA 508 | A | ND  |    | 1 | 0.000250  | mg/L | 0.000500 | 12/22/20 18:19 TJW |
| Toxaphene                        | EPA 508 | A | ND  |    | 1 | 0.000300  | mg/L | 0.00300  | 12/22/20 18:19 TJW |
| Surr: Decachlorobiphenyl         | EPA 508 |   | 135 | MI | 1 | 70 - 130  | %Rec |          | 12/22/20 18:19 TJW |

### QUALIFIERS

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## Analytical Report

WO#: 20120951  
Date Reported: 1/27/2021

**CLIENT:** Grants Pass Water Filtration  
**Lab ID:** 20120951-01  
**Client Sample ID:** Bear Creek Greenway Bridge  
**Project:** Bear Creek Greenway Bridge by US Cell  
**Sample Address:**

**Collection Date:** 12/17/2020 8:10:00 AM  
**Received Date:** 12/17/2020 10:57:00 AM  
**Matrix:** AQUEOUS

**Sample Location:** Grab

| Analyses                       | Method    | NELAP Status | Result | Qual | DF | RL       | Units     | MCL     | Date Analyzed/Analyst |
|--------------------------------|-----------|--------------|--------|------|----|----------|-----------|---------|-----------------------|
| <b>MERCURY BY EPA 245.1</b>    |           |              |        |      |    |          |           |         |                       |
| Mercury                        | EPA 245.1 | A            | ND     |      | 1  | 0.000200 | mg/L      | 0.00200 | 12/21/20 17:06 SJS    |
| <b>BACTERIA BY QUANTI-TRAY</b> |           |              |        |      |    |          |           |         |                       |
| E. Coli Bacteria               | SM 9223 B | A            | 665    |      | 1  | 1.00     | MPN/100mL |         | 12/17/20 13:08 CEM    |
| <b>DIOXINS/FURANS</b>          |           |              |        |      |    |          |           |         |                       |
| Dioxins                        | EPA 1613B | See Attached | SC     | 1    |    | 0        | pg/L      |         | 01/03/21 0:00 TAK     |
| Furans                         | EPA 1613B | See Attached | SC     | 1    |    | 0        | pg/L      |         | 01/03/21 0:00 TAK     |
| <b>CYANIDE, TOTAL</b>          |           |              |        |      |    |          |           |         |                       |
| Cyanide, Total                 | EPA 335.4 | A            | ND     | Q    | 1  | 0.00500  | mg/L      |         | 12/28/20 7:34 SCM     |
| <b>TOTAL KJELDAHL NITROGEN</b> |           |              |        |      |    |          |           |         |                       |
| Nitrogen, Kjeldahl, Total      | EPA 351.2 | A            | 2.02   |      | 1  | 0.625    | mg/L      |         | 01/05/21 15:41 KEC    |
| <b>SUB MISCELLANEOUS</b>       |           |              |        |      |    |          |           |         |                       |
| TEM Water Amphibole            | SUB-MISC  | See Attached | SC     | 1    |    | 0        |           |         | 12/28/20 0:00 TAK     |
| TEM Water Chrysotile           | SUB-MISC  | See Attached | SC     | 1    |    | 0        |           |         | 12/28/20 0:00 TAK     |
| TEM Water Total                | SUB-MISC  | See Attached | SC     | 1    |    | 0        |           |         | 12/28/20 0:00 TAK     |
| <b>SUB MISCELLANEOUS</b>       |           |              |        |      |    |          |           |         |                       |
| PFAS                           | SUB-MISC  | See Attached | SC     | 1    |    | 0        | ng/L      |         | 01/07/21 0:00 TAK     |

### QUALIFIERS

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## Analytical Report

WO#: 20120951  
Date Reported: 1/27/2021

**CLIENT:** Grants Pass Water Filtration  
**Lab ID:** 20120951-01  
**Client Sample ID:** Bear Creek Greenway Bridge  
**Project:** Bear Creek Greenway Bridge by US Cell  
**Sample Address:**

**Collection Date:** 12/17/2020 8:10:00 AM  
**Received Date:** 12/17/2020 10:57:00 AM  
**Matrix:** AQUEOUS

**Sample Location:** Grab

| Analyses                                  | Method      | NELAP Status | Result | Qual | DF | RL    | Units | MCL | Date Analyzed/Analyst |
|-------------------------------------------|-------------|--------------|--------|------|----|-------|-------|-----|-----------------------|
| <b>TOTAL ORGANIC CARBON</b>               |             |              |        |      |    |       |       |     |                       |
| Organic Carbon, Total                     | SM 5310 C   | A            | 7.56   |      | 10 | 1.00  | mg/L  |     | 12/23/20 21:33 SJS    |
| <b>TOTAL ALKALINITY</b>                   |             |              |        |      |    |       |       |     |                       |
| Alkalinity, Total (As CaCO <sub>3</sub> ) | SM 2320B    | A            | 102    |      | 1  | 10.0  | mg/L  |     | 12/28/20 14:45 DLM    |
| <b>TOTAL PHOSPHORUS AS P</b>              |             |              |        |      |    |       |       |     |                       |
| Phosphorus, Total (As P)                  | SM 4500-P E | A            | 0.521  |      | 1  | 0.125 | mg/L  |     | 12/21/20 16:45 DLM    |
| <b>TOTAL SUSPENDED SOLIDS</b>             |             |              |        |      |    |       |       |     |                       |
| Total Suspended Solids                    | SM 2540 D   | A            | 80.0   |      | 1  | 2.00  | mg/L  |     | 12/18/20 17:15 DLM    |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

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MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

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# QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** ALK

|                              |                  |               |             |                           |                                                        |
|------------------------------|------------------|---------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: MB-R18060         | SampleType: MBLK | TestCode: ALK | Units: mg/L | Prep Date:                | RunNo: 18060                                           |
| Client ID: PBW               | Batch ID: R18060 | TestNo: A2320 |             | Analysis Date: 12/28/2020 | SeqNo: 262766                                          |
| Analyte                      | Result           | PQL           | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Alkalinity, Total (As CaCO3) | ND               | 10.0          |             |                           |                                                        |

|                              |                  |               |             |                           |                                                        |
|------------------------------|------------------|---------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: LCS-R18060        | SampleType: LCS  | TestCode: ALK | Units: mg/L | Prep Date:                | RunNo: 18060                                           |
| Client ID: LCSW              | Batch ID: R18060 | TestNo: A2320 |             | Analysis Date: 12/28/2020 | SeqNo: 262767                                          |
| Analyte                      | Result           | PQL           | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Alkalinity, Total (As CaCO3) | 48.0             | 10.0          | 50.00       | 0                         | 96.0 80 120                                            |

|                               |                  |               |             |                           |                                                        |
|-------------------------------|------------------|---------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20120951-01ADUP    | SampleType: DUP  | TestCode: ALK | Units: mg/L | Prep Date:                | RunNo: 18060                                           |
| Client ID: Bear Creek Greenwa | Batch ID: R18060 | TestNo: A2320 |             | Analysis Date: 12/28/2020 | SeqNo: 262769                                          |
| Analyte                       | Result           | PQL           | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Alkalinity, Total (As CaCO3)  | 102              | 10.0          |             |                           | 102.0 0 10                                             |

|                    |                                                               |    |                                                                       |    |                                                  |
|--------------------|---------------------------------------------------------------|----|-----------------------------------------------------------------------|----|--------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.                    | C1 | Sample container temperature is out of limit as specified at testcode | H  | Holding times for preparation or analysis exceed |
|                    | MI Recovery outside control limits due to Matrix Interference | ND | Not Detected at the Reporting Limit                                   | PL | Permit Limit                                     |
|                    | RL Reporting Detection Limit                                  |    |                                                                       |    |                                                  |

Original



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## QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** CYANIDE\_W

|                     |                 |                     |             |                           |                                                        |
|---------------------|-----------------|---------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: MB-10216 | SampType: MBLK  | TestCode: CYANIDE_W | Units: mg/L | Prep Date: 12/23/2020     | RunNo: 18038                                           |
| Client ID: PBW      | Batch ID: 10216 | TestNo: E335.4      | E335.4      | Analysis Date: 12/28/2020 | SeqNo: 262440                                          |
| Analyte             | Result          | PQL                 | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Cyanide, Total      | ND              | 0.00500             |             |                           |                                                        |

|                      |                 |                     |             |                           |                                                        |
|----------------------|-----------------|---------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: LCS-10216 | SampType: LCS   | TestCode: CYANIDE_W | Units: mg/L | Prep Date: 12/23/2020     | RunNo: 18038                                           |
| Client ID: LCSW      | Batch ID: 10216 | TestNo: E335.4      | E335.4      | Analysis Date: 12/28/2020 | SeqNo: 262442                                          |
| Analyte              | Result          | PQL                 | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Cyanide, Total       | 0.0433          | 0.00500             | 0           | 108 90 110                |                                                        |

|                           |                 |                     |             |                           |                                                        |
|---------------------------|-----------------|---------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20120906-01DMS | SampType: MS    | TestCode: CYANIDE_W | Units: mg/L | Prep Date: 12/23/2020     | RunNo: 18038                                           |
| Client ID: BatchQC        | Batch ID: 10216 | TestNo: E335.4      | E335.4      | Analysis Date: 12/28/2020 | SeqNo: 262444                                          |
| Analyte                   | Result          | PQL                 | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Cyanide, Total            | 0.0393          | 0.00500             | 0.04000     | 0.004400                  | 87.2 80 120                                            |

|                            |                 |                     |             |                           |                                                        |
|----------------------------|-----------------|---------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20120906-01DMSD | SampType: MSD   | TestCode: CYANIDE_W | Units: mg/L | Prep Date: 12/23/2020     | RunNo: 18038                                           |
| Client ID: BatchQC         | Batch ID: 10216 | TestNo: E335.4      | E335.4      | Analysis Date: 12/28/2020 | SeqNo: 262445                                          |
| Analyte                    | Result          | PQL                 | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Cyanide, Total             | 0.0411          | 0.00500             | 0.04000     | 0.004400                  | 91.8 80 120 0.03930 4.48 20                            |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. MI Recovery outside control limits due to Matrix Interference. RL Reporting Detection Limit. C1 Sample container temperature is out of limit as specified at testcode. ND Not Detected at the Reporting Limit. H Holding times for preparation or analysis exceed PL Permit Limit.

Original



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# QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA508\_DW

|                     |                 |                     |             |                           |               |          |           |             |      |          |      |
|---------------------|-----------------|---------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: MB-10145 | SampType: MBLK  | TestCode: EPA508_DW | Units: mg/L | Prep Date: 12/18/2020     | RunNo: 18053  |          |           |             |      |          |      |
| Client ID: PBW      | Batch ID: 10145 | TestNo: E508        | E508        | Analysis Date: 12/22/2020 | SeqNo: 262644 |          |           |             |      |          |      |
| Analyte             | Result          | PQL                 | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|                                  |          |           |           |  |     |    |     |  |  |  |  |
|----------------------------------|----------|-----------|-----------|--|-----|----|-----|--|--|--|--|
| Aldrin                           | ND       | 0.0000100 |           |  |     |    |     |  |  |  |  |
| Chlordane                        | ND       | 0.000250  |           |  |     |    |     |  |  |  |  |
| Dieldrin                         | ND       | 0.0000100 |           |  |     |    |     |  |  |  |  |
| Endrin                           | ND       | 0.0000100 |           |  |     |    |     |  |  |  |  |
| gamma-BHC (Lindane)              | ND       | 0.0000100 |           |  |     |    |     |  |  |  |  |
| Heptachlor                       | ND       | 0.0000100 |           |  |     |    |     |  |  |  |  |
| Heptachlor epoxide               | ND       | 0.0000100 |           |  |     |    |     |  |  |  |  |
| Methoxychlor                     | ND       | 0.000100  |           |  |     |    |     |  |  |  |  |
| Polychlorinated Biphenyls (PCBs) | ND       | 0.000250  |           |  |     |    |     |  |  |  |  |
| Toxaphene                        | ND       | 0.000300  |           |  |     |    |     |  |  |  |  |
| Surr: Decachlorobiphenyl         | 0.000261 |           | 0.0002500 |  | 105 | 70 | 130 |  |  |  |  |

|                      |                 |                     |             |                           |               |          |           |             |      |          |      |
|----------------------|-----------------|---------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: LCS-10145 | SampType: LCS   | TestCode: EPA508_DW | Units: mg/L | Prep Date: 12/18/2020     | RunNo: 18053  |          |           |             |      |          |      |
| Client ID: LCSW      | Batch ID: 10145 | TestNo: E508        | E508        | Analysis Date: 12/22/2020 | SeqNo: 262645 |          |           |             |      |          |      |
| Analyte              | Result          | PQL                 | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|                          |          |           |           |  |   |      |    |     |  |  |  |
|--------------------------|----------|-----------|-----------|--|---|------|----|-----|--|--|--|
| Aldrin                   | 0.000176 | 0.0000100 | 0.0002000 |  | 0 | 87.8 | 70 | 130 |  |  |  |
| Dieldrin                 | 0.000180 | 0.0000100 | 0.0002000 |  | 0 | 90.1 | 70 | 130 |  |  |  |
| Endrin                   | 0.000250 | 0.0000100 | 0.0002000 |  | 0 | 125  | 70 | 130 |  |  |  |
| gamma-BHC (Lindane)      | 0.000187 | 0.0000100 | 0.0002000 |  | 0 | 93.6 | 70 | 130 |  |  |  |
| Heptachlor               | 0.000194 | 0.0000100 | 0.0002000 |  | 0 | 97.0 | 70 | 130 |  |  |  |
| Heptachlor epoxide       | 0.000174 | 0.0000100 | 0.0002000 |  | 0 | 87.1 | 70 | 130 |  |  |  |
| Methoxychlor             | 0.000190 | 0.000100  | 0.0002000 |  | 0 | 94.9 | 70 | 130 |  |  |  |
| Surr: Decachlorobiphenyl | 0.000306 |           | 0.0002500 |  |   | 123  | 70 | 130 |  |  |  |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. MI Recovery outside control limits due to Matrix Interference. RL Reporting Detection Limit. C1 Sample container temperature is out of limit as specified at testcode. ND Not Detected at the Reporting Limit. H Holding times for preparation or analysis exceed PL Permit Limit.

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## QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA508\_DW

|                      |                 |                     |             |                           |               |          |           |             |      |          |      |
|----------------------|-----------------|---------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: LCS-10145 | SampType: LCS   | TestCode: EPA508_DW | Units: mg/L | Prep Date: 12/18/2020     | RunNo: 18053  |          |           |             |      |          |      |
| Client ID: LCSW      | Batch ID: 10145 | TestNo: E508        | E508        | Analysis Date: 12/22/2020 | SeqNo: 262645 |          |           |             |      |          |      |
| Analyte              | Result          | PQL                 | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|                          |                 |                     |             |                           |               |          |           |             |      |          |      |
|--------------------------|-----------------|---------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: LCS-10145-PCB | SampType: LCS2  | TestCode: EPA508_DW | Units: %Rec | Prep Date: 12/18/2020     | RunNo: 18053  |          |           |             |      |          |      |
| Client ID: BatchQC       | Batch ID: 10145 | TestNo: E508        | E508        | Analysis Date: 12/22/2020 | SeqNo: 262646 |          |           |             |      |          |      |
| Analyte                  | Result          | PQL                 | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Surr: Decachlorobiphenyl | 0.000284        |                     | 0.0002500   |                           | 113           | 70       | 130       |             |      |          |      |

|                           |                 |                     |             |                           |               |          |           |             |      |          |      |
|---------------------------|-----------------|---------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 20120790-01AMS | SampType: MS    | TestCode: EPA508_DW | Units: mg/L | Prep Date: 12/18/2020     | RunNo: 18053  |          |           |             |      |          |      |
| Client ID: BatchQC        | Batch ID: 10145 | TestNo: E508        | E508        | Analysis Date: 12/22/2020 | SeqNo: 262648 |          |           |             |      |          |      |
| Analyte                   | Result          | PQL                 | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Aldrin                    | 0.000181        | 0.0000100           | 0.0002000   | 0                         | 90.3          | 70       | 130       |             |      |          |      |
| Dieldrin                  | 0.000184        | 0.0000100           | 0.0002000   | 0                         | 92.2          | 70       | 130       |             |      |          |      |
| Endrin                    | 0.000249        | 0.0000100           | 0.0002000   | 0                         | 125           | 70       | 130       |             |      |          |      |
| gamma-BHC (Lindane)       | 0.000192        | 0.0000100           | 0.0002000   | 0                         | 95.9          | 70       | 130       |             |      |          |      |
| Heptachlor                | 0.000198        | 0.0000100           | 0.0002000   | 0                         | 99.2          | 70       | 130       |             |      |          |      |
| Heptachlor epoxide        | 0.000178        | 0.0000100           | 0.0002000   | 0                         | 89.0          | 70       | 130       |             |      |          |      |
| Methoxychlor              | 0.000206        | 0.000100            | 0.0002000   | 0                         | 103           | 70       | 130       |             |      |          |      |
| Surr: Decachlorobiphenyl  | 0.000286        |                     | 0.0002500   |                           | 114           | 70       | 130       |             |      |          |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. MI Recovery outside control limits due to Matrix Interference. RL Reporting Detection Limit. C1 Sample container temperature is out of limit as specified at testcode. ND Not Detected at the Reporting Limit. H Holding times for preparation or analysis exceed PL Permit Limit.

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# QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA508\_DW

|                            |          |                 |           |                     |      |             |           |                           |       |               |      |
|----------------------------|----------|-----------------|-----------|---------------------|------|-------------|-----------|---------------------------|-------|---------------|------|
| Sample ID: 20120790-01AMSD |          | SampType: MSD   |           | TestCode: EPA508_DW |      | Units: mg/L |           | Prep Date: 12/18/2020     |       | RunNo: 18053  |      |
| Client ID: BatchQC         |          | Batch ID: 10145 |           | TestNo: E508        |      | E508        |           | Analysis Date: 12/22/2020 |       | SeqNo: 262649 |      |
| Analyte                    | Result   | PQL             | SPK value | SPK Ref Val         | %REC | LowLimit    | HighLimit | RPD Ref Val               | %RPD  | RPDLimit      | Qual |
| Aldrin                     | 0.000182 | 0.0000100       | 0.0002000 | 0                   | 90.8 | 70          | 130       | 0.0001806                 | 0.602 | 20            |      |
| Dieldrin                   | 0.000188 | 0.0000100       | 0.0002000 | 0                   | 93.8 | 70          | 130       | 0.0001844                 | 1.71  | 20            |      |
| Endrin                     | 0.000247 | 0.0000100       | 0.0002000 | 0                   | 124  | 70          | 130       | 0.0002490                 | 0.778 | 20            |      |
| gamma-BHC (Lindane)        | 0.000194 | 0.0000100       | 0.0002000 | 0                   | 97.1 | 70          | 130       | 0.0001918                 | 1.30  | 20            |      |
| Heptachlor                 | 0.000201 | 0.0000100       | 0.0002000 | 0                   | 100  | 70          | 130       | 0.0001984                 | 1.07  | 20            |      |
| Heptachlor epoxide         | 0.000181 | 0.0000100       | 0.0002000 | 0                   | 90.5 | 70          | 130       | 0.0001779                 | 1.75  | 20            |      |
| Methoxychlor               | 0.000221 | 0.000100        | 0.0002000 | 0                   | 111  | 70          | 130       | 0.0002059                 | 7.20  | 20            |      |
| Surr: Decachlorobiphenyl   | 0.000263 |                 | 0.0002500 |                     | 105  | 70          | 130       |                           | 0     |               |      |

|                               |          |                 |           |                     |      |             |                           |             |               |          |      |
|-------------------------------|----------|-----------------|-----------|---------------------|------|-------------|---------------------------|-------------|---------------|----------|------|
| Sample ID: 20120951-01HMS     |          | Batch ID: 10145 | MS        | TestCode: EPA508_DW |      | Units: mg/L | Prep Date: 12/18/2020     |             | RunNo: 18053  |          |      |
| Client ID: Bear Creek Greenwa |          |                 |           | TestNo: E508        |      | E508        | Analysis Date: 12/22/2020 |             | SeqNo: 262656 |          |      |
| Analyte                       | Result   | PQL             | SPK value | SPK Ref Val         | %REC | LowLimit    | HighLimit                 | RPD Ref Val | %RPD          | RPDLimit | Qual |
| Aldrin                        | 0.000175 | 0.0000100       | 0.0002000 | 0                   | 87.5 | 70          | 130                       |             |               |          |      |
| Dieldrin                      | 0.000183 | 0.0000100       | 0.0002000 | 0                   | 91.4 | 70          | 130                       |             |               |          |      |
| Endrin                        | 0.000233 | 0.0000100       | 0.0002000 | 0                   | 117  | 70          | 130                       |             |               |          |      |
| gamma-BHC (Lindane)           | 0.000190 | 0.0000100       | 0.0002000 | 0                   | 94.8 | 70          | 130                       |             |               |          |      |
| Heptachlor                    | 0.000184 | 0.0000100       | 0.0002000 | 0                   | 92.1 | 70          | 130                       |             |               |          |      |
| Heptachlor epoxide            | 0.000178 | 0.0000100       | 0.0002000 | 0                   | 88.9 | 70          | 130                       |             |               |          | MI   |
| Methoxychlor                  | 0.000268 | 0.0000100       | 0.0002000 | 0                   | 134  | 70          | 130                       |             |               |          | MI   |
| Surr: Decachlorobiphenyl      | 0.000335 |                 | 0.0002500 |                     | 134  | 70          | 130                       |             |               |          |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. MI Recovery outside control limits due to Matrix Interference. RL Reporting Detection Limit. C1 Sample container temperature is out of limit as specified at testcode. ND Not Detected at the Reporting Limit. H Holding times for preparation or analysis exceed PL Permit Limit.

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## QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA508\_DW

|                               |          |                 |           |                     |      |             |           |                           |       |               |      |
|-------------------------------|----------|-----------------|-----------|---------------------|------|-------------|-----------|---------------------------|-------|---------------|------|
| Sample ID: 20120951-01HMSD    |          | SampType: MSD   |           | TestCode: EPA508_DW |      | Units: mg/L |           | Prep Date: 12/18/2020     |       | RunNo: 18053  |      |
| Client ID: Bear Creek Greenwa |          | Batch ID: 10145 |           | TestNo: E508        |      | E508        |           | Analysis Date: 12/22/2020 |       | SeqNo: 262657 |      |
| Analyte                       | Result   | PQL             | SPK value | SPK Ref Val         | %REC | LowLimit    | HighLimit | RPD Ref Val               | %RPD  | RPDLimit      | Qual |
| Aldrin                        | 0.000173 | 0.0000100       | 0.0002000 | 0                   | 86.7 | 70          | 130       | 0.0001750                 | 0.904 | 20            |      |
| Dieldrin                      | 0.000180 | 0.0000100       | 0.0002000 | 0                   | 90.0 | 70          | 130       | 0.0001827                 | 1.52  | 20            |      |
| Endrin                        | 0.000234 | 0.0000100       | 0.0002000 | 0                   | 117  | 70          | 130       | 0.0002332                 | 0.424 | 20            |      |
| gamma-BHC (Lindane)           | 0.000188 | 0.0000100       | 0.0002000 | 0                   | 94.2 | 70          | 130       | 0.0001896                 | 0.688 | 20            |      |
| Heptachlor                    | 0.000185 | 0.0000100       | 0.0002000 | 0                   | 92.4 | 70          | 130       | 0.0001843                 | 0.266 | 20            |      |
| Heptachlor epoxide            | 0.000173 | 0.0000100       | 0.0002000 | 0                   | 86.4 | 70          | 130       | 0.0001777                 | 2.81  | 20            |      |
| Methoxychlor                  | 0.000261 | 0.000100        | 0.0002000 | 0                   | 130  | 70          | 130       | 0.0002685                 | 2.85  | 20            | MI   |
| Surr: Decachlorobiphenyl      | 0.000335 |                 | 0.0002500 |                     | 134  | 70          | 130       |                           | 0     |               | MI   |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level.  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit

C1 Sample container temperature is out of limit as specified at testcode  
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceed  
PL Permit Limit

Original



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# QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

| Sample ID: LCS                    | SampType: LCS    | TestCode: EPA524.2_D | Units: mg/L | Prep Date:                | RunNo: 17859  |          |           |             |      |          |      |
|-----------------------------------|------------------|----------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Client ID: LCSW                   | Batch ID: R17859 | TestNo: E524.2       |             | Analysis Date: 12/17/2020 | SeqNo: 258762 |          |           |             |      |          |      |
| Analyte                           | Result           | PQL                  | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| 1,1,1-Trichloroethane (1,1,1-TCA) | 0.0183           | 0.000500             | 0.02000     | 0                         | 91.4          | 70       | 130       |             |      |          |      |
| 1,1,2-Trichloroethane             | 0.0180           | 0.000500             | 0.02000     | 0                         | 89.8          | 70       | 130       |             |      |          |      |
| 1,1-Dichloroethylene              | 0.0180           | 0.000500             | 0.02000     | 0                         | 90.1          | 70       | 130       |             |      |          |      |
| 1,2,4-Trichlorobenzene            | 0.0192           | 0.000500             | 0.02000     | 0                         | 96.2          | 70       | 130       |             |      |          |      |
| 1,2-Dichloroethane (EDC)          | 0.0175           | 0.000500             | 0.02000     | 0                         | 87.6          | 70       | 130       |             |      |          |      |
| 1,2-Dichloropropane               | 0.0181           | 0.000500             | 0.02000     | 0                         | 90.4          | 70       | 130       |             |      |          |      |
| Benzene                           | 0.0174           | 0.000500             | 0.02000     | 0                         | 86.8          | 70       | 130       |             |      |          |      |
| Carbon tetrachloride              | 0.0183           | 0.000500             | 0.02000     | 0                         | 91.6          | 70       | 130       |             |      |          |      |
| cis-1,2-Dichloroethene            | 0.0179           | 0.000500             | 0.02000     | 0                         | 89.5          | 70       | 130       |             |      |          |      |
| Dichloromethane                   | 0.0191           | 0.000500             | 0.02000     | 0                         | 95.7          | 70       | 130       |             |      |          |      |
| Ethylbenzene                      | 0.0182           | 0.000500             | 0.02000     | 0                         | 91.0          | 70       | 130       |             |      |          |      |
| Monochlorobenzene                 | 0.0180           | 0.000500             | 0.02000     | 0                         | 90.1          | 70       | 130       |             |      |          |      |
| o-Dichlorobenzene                 | 0.0185           | 0.000500             | 0.02000     | 0                         | 92.4          | 70       | 130       |             |      |          |      |
| p-Dichlorobenzene                 | 0.0183           | 0.000500             | 0.02000     | 0                         | 91.7          | 70       | 130       |             |      |          |      |
| Styrene                           | 0.0185           | 0.000500             | 0.02000     | 0                         | 92.6          | 70       | 130       |             |      |          |      |
| Tetrachloroethene (PCE)           | 0.0197           | 0.000500             | 0.02000     | 0                         | 98.3          | 70       | 130       |             |      |          |      |
| Toluene                           | 0.0177           | 0.000500             | 0.02000     | 0                         | 88.7          | 70       | 130       |             |      |          |      |
| trans-1,2-Dichloroethylene        | 0.0180           | 0.000500             | 0.02000     | 0                         | 89.8          | 70       | 130       |             |      |          |      |
| Trichloroethene (TCE)             | 0.0180           | 0.000500             | 0.02000     | 0                         | 90.0          | 70       | 130       |             |      |          |      |
| Vinyl chloride                    | 0.0190           | 0.000500             | 0.02000     | 0                         | 95.1          | 70       | 130       |             |      |          |      |
| Xylenes, Total                    | 0.0551           | 0.000500             | 0.06000     | 0                         | 91.8          | 70       | 130       |             |      |          |      |
| 1,1,1,2-Tetrachloroethane         | 0.0188           | 0.000500             | 0.02000     | 0                         | 94.2          | 70       | 130       |             |      |          |      |
| 1,1,2,2-Tetrachloroethane         | 0.0186           | 0.000500             | 0.02000     | 0                         | 93.0          | 70       | 130       |             |      |          |      |
| 1,1-Dichloroethane                | 0.0178           | 0.000500             | 0.02000     | 0                         | 88.9          | 70       | 130       |             |      |          |      |
| 1,1-Dichloropropene               | 0.0181           | 0.000500             | 0.02000     | 0                         | 90.4          | 70       | 130       |             |      |          |      |
| 1,2,3-Trichloropropane            | 0.0190           | 0.000500             | 0.02000     | 0                         | 94.9          | 70       | 130       |             |      |          |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit  
C1 Sample container temperature is out of limit as specified at testcode  
ND Not Detected at the Reporting Limit  
H Holding times for preparation or analysis exceed  
PL Permit Limit

Original





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# QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

| Sample ID: LCS             | Sample Type: LCS | TestCode: EPA524.2_D | Units: mg/L | Prep Date:                | RunNo: 17859  |          |           |             |      |          |      |
|----------------------------|------------------|----------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Client ID: LCSW            | Batch ID: R17859 | TestNo: E524.2       |             | Analysis Date: 12/17/2020 | SeqNo: 258762 |          |           |             |      |          |      |
| Analyte                    | Result           | PQL                  | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| 1,3-Dichloropropane        | 0.0182           | 0.000500             | 0.02000     | 0                         | 90.8          | 70       | 130       |             |      |          |      |
| 1,3-Dichloropropene        | 0.0373           | 0.000500             | 0.04000     | 0                         | 93.2          | 70       | 130       |             |      |          |      |
| 2,2-Dichloropropane        | 0.0180           | 0.000500             | 0.02000     | 0                         | 90.2          | 70       | 130       |             |      |          |      |
| Bromobenzene               | 0.0184           | 0.000500             | 0.02000     | 0                         | 91.8          | 70       | 130       |             |      |          |      |
| Bromodichloromethane       | 0.0180           | 0.000500             | 0.02000     | 0                         | 90.2          | 70       | 130       |             |      |          |      |
| Bromoform                  | 0.0190           | 0.000500             | 0.02000     | 0                         | 95.2          | 70       | 130       |             |      |          |      |
| Bromomethane               | 0.0199           | 0.000500             | 0.02000     | 0                         | 99.3          | 70       | 130       |             |      |          |      |
| Chloroethane               | 0.0192           | 0.000500             | 0.02000     | 0                         | 95.8          | 70       | 130       |             |      |          |      |
| Chloroform                 | 0.0180           | 0.000500             | 0.02000     | 0                         | 89.8          | 70       | 130       |             |      |          |      |
| Chloromethane              | 0.0198           | 0.000500             | 0.02000     | 0                         | 99.1          | 70       | 130       |             |      |          |      |
| Dibromochloromethane       | 0.0187           | 0.000500             | 0.02000     | 0                         | 93.6          | 70       | 130       |             |      |          |      |
| Dibromomethane             | 0.0181           | 0.000500             | 0.02000     | 0                         | 90.7          | 70       | 130       |             |      |          |      |
| m-Dichlorobenzene          | 0.0182           | 0.000500             | 0.02000     | 0                         | 90.9          | 70       | 130       |             |      |          |      |
| Methyl tert-butyl ether    | 0.0183           | 0.000500             | 0.02000     | 0                         | 91.4          | 70       | 130       |             |      |          |      |
| o-Chlorotoluene            | 0.0187           | 0.000500             | 0.02000     | 0                         | 93.6          | 70       | 130       |             |      |          |      |
| p-Chlorotoluene            | 0.0186           | 0.000500             | 0.02000     | 0                         | 92.8          | 70       | 130       |             |      |          |      |
| Surr: Dibromofluoromethane | 0.0401           |                      | 0.04000     |                           | 100           | 80       | 120       |             |      |          |      |
| Surr: Toluene-d8           | 0.0399           |                      | 0.04000     |                           | 99.7          | 80       | 120       |             |      |          |      |
| Surr: 4-Bromofluorobenzene | 0.0408           |                      | 0.04000     |                           | 102           | 80       | 120       |             |      |          |      |

|                        |                          |                             |                    |                                  |                      |          |           |             |      |          |      |
|------------------------|--------------------------|-----------------------------|--------------------|----------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MBLK</b> | Sample Type: <b>MBLK</b> | TestCode: <b>EPA524.2_D</b> | Units: <b>mg/L</b> | Prep Date:                       | RunNo: <b>17859</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>  | Batch ID: <b>R17859</b>  | TestNo: <b>E524.2</b>       |                    | Analysis Date: <b>12/17/2020</b> | SeqNo: <b>258764</b> |          |           |             |      |          |      |
| Analyte                | Result                   | PQL                         | SPK value          | SPK Ref Val                      | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level.  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit

C1 Sample container temperature is out of limit as specified at testcode  
ND Not Detected at the Reporting Limit  
H Holding times for preparation or analysis exceed  
PL Permit Limit

Original



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TEL: (541) 770-5678 FAX: (541) 770-2901  
Website: www.nrclabs.com

# QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

|                                   |                         |                             |                    |                                  |                      |          |           |             |      |          |      |
|-----------------------------------|-------------------------|-----------------------------|--------------------|----------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MBLK</b>            | SampleType: <b>MBLK</b> | TestCode: <b>EPA524.2_D</b> | Units: <b>mg/L</b> | Prep Date:                       | RunNo: <b>17859</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>             | Batch ID: <b>R17859</b> | TestNo: <b>E524.2</b>       |                    | Analysis Date: <b>12/17/2020</b> | SeqNo: <b>258764</b> |          |           |             |      |          |      |
| Analyte                           | Result                  | PQL                         | SPK value          | SPK Ref Val                      | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| 1,1,1-Trichloroethane (1,1,1-TCA) | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,1,2-Trichloroethane             | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,1-Dichloroethylene              | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,2,4-Trichlorobenzene            | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,2-Dichloroethane (EDC)          | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,2-Dichloropropane               | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Benzene                           | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Carbon tetrachloride              | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| cis-1,2-Dichloroethene            | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Dichloromethane                   | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Ethylbenzene                      | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Monochlorobenzene                 | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| o-Dichlorobenzene                 | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| p-Dichlorobenzene                 | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Styrene                           | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Tetrachloroethene (PCE)           | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Toluene                           | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| trans-1,2-Dichloroethylene        | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Trichloroethene (TCE)             | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Vinyl chloride                    | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| Xylenes, Total                    | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,1,1,2-Tetrachloroethane         | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,1,2,2-Tetrachloroethane         | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,1-Dichloroethane                | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,1-Dichloropropene               | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |
| 1,2,3-Trichloropropane            | ND                      | 0.000500                    |                    |                                  |                      |          |           |             |      |          |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level.  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit  
C1 Sample container temperature is out of limit as specified at testcode  
ND Not Detected at the Reporting Limit  
H Holding times for preparation or analysis exceed  
PL Permit Limit

Original



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# QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

|                        |                          |                             |                    |                                  |                      |          |           |             |      |          |      |
|------------------------|--------------------------|-----------------------------|--------------------|----------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MBLK</b> | Sample Type: <b>MBLK</b> | TestCode: <b>EPA524.2_D</b> | Units: <b>mg/L</b> | Prep Date:                       | RunNo: <b>17859</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>  | Batch ID: <b>R17859</b>  | TestNo: <b>E524.2</b>       |                    | Analysis Date: <b>12/17/2020</b> | SeqNo: <b>258764</b> |          |           |             |      |          |      |
| Analyte                | Result                   | PQL                         | SPK value          | SPK Ref Val                      | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|                            |        |          |         |  |      |    |  |  |  |     |  |
|----------------------------|--------|----------|---------|--|------|----|--|--|--|-----|--|
| 1,3-Dichloropropane        | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| 1,3-Dichloropropene        | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| 2,2-Dichloropropane        | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Bromobenzene               | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Bromodichloromethane       | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Bromoform                  | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Bromomethane               | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Chloroethane               | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Chloroform                 | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Chloromethane              | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Dibromochloromethane       | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Dibromomethane             | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| m-Dichlorobenzene          | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Methyl tert-butyl ether    | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| o-Chlorotoluene            | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| p-Chlorotoluene            | ND     | 0.000500 |         |  |      |    |  |  |  |     |  |
| Surr: Dibromofluoromethane | 0.0400 |          | 0.04000 |  | 100  | 80 |  |  |  | 120 |  |
| Surr: Toluene-d8           | 0.0399 |          | 0.04000 |  | 99.8 | 80 |  |  |  | 120 |  |
| Surr: 4-Bromofluorobenzene | 0.0407 |          | 0.04000 |  | 102  | 80 |  |  |  | 120 |  |

|                           |                  |                      |             |                           |               |          |           |             |      |          |      |
|---------------------------|------------------|----------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 20120811-01AMS | Sample Type: MS  | TestCode: EPA524.2_D | Units: mg/L | Prep Date:                | RunNo: 17859  |          |           |             |      |          |      |
| Client ID: BatchQC        | Batch ID: R17859 | TestNo: E524.2       |             | Analysis Date: 12/18/2020 | SeqNo: 258774 |          |           |             |      |          |      |
| Analyte                   | Result           | PQL                  | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level.  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit

C1 Sample container temperature is out of limit as specified at testcode  
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceed  
PL Permit Limit

Original



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# QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

| Sample ID: 20120811-01AMS         |                  | SampType: MS   |           | TestCode: EPA524.2_D |      | Units: mg/L |           | Prep Date:  |      | RunNo: 17859  |      |
|-----------------------------------|------------------|----------------|-----------|----------------------|------|-------------|-----------|-------------|------|---------------|------|
| Client ID: BatchQC                | Batch ID: R17859 | TestNo: E524.2 |           | PQL                  |      | SPK value   |           | SPK Ref Val |      | SeqNo: 258774 |      |
| Analyte                           | Result           | PQL            | SPK value | SPK Ref Val          | %REC | LowLimit    | HighLimit | RPD Ref Val | %RPD | RPDLimit      | Qual |
| 1,1,1-Trichloroethane (1,1,1-TCA) | 0.0172           | 0.000500       | 0.02000   | 0                    | 86.0 | 70          | 130       |             |      |               |      |
| 1,1,2-Trichloroethane             | 0.0159           | 0.000500       | 0.02000   | 0                    | 79.4 | 70          | 130       |             |      |               |      |
| 1,1-Dichloroethylene              | 0.0172           | 0.000500       | 0.02000   | 0                    | 86.0 | 70          | 130       |             |      |               |      |
| 1,2,4-Trichlorobenzene            | 0.0147           | 0.000500       | 0.02000   | 0                    | 73.3 | 70          | 130       |             |      |               |      |
| 1,2-Dichloroethane (EDC)          | 0.0158           | 0.000500       | 0.02000   | 0                    | 79.2 | 70          | 130       |             |      |               |      |
| 1,2-Dichloropropane               | 0.0161           | 0.000500       | 0.02000   | 0                    | 80.4 | 70          | 130       |             |      |               |      |
| Benzene                           | 0.0157           | 0.000500       | 0.02000   | 0                    | 78.4 | 70          | 130       |             |      |               |      |
| Carbon tetrachloride              | 0.0167           | 0.000500       | 0.02000   | 0                    | 83.3 | 70          | 130       |             |      |               |      |
| cis-1,2-Dichloroethene            | 0.0160           | 0.000500       | 0.02000   | 0                    | 79.9 | 70          | 130       |             |      |               |      |
| Dichloromethane                   | 0.0166           | 0.000500       | 0.02000   | 0                    | 82.8 | 70          | 130       |             |      |               |      |
| Ethylbenzene                      | 0.0163           | 0.000500       | 0.02000   | 0                    | 81.7 | 70          | 130       |             |      |               |      |
| Monochlorobenzene                 | 0.0160           | 0.000500       | 0.02000   | 0                    | 80.0 | 70          | 130       |             |      |               |      |
| o-Dichlorobenzene                 | 0.0151           | 0.000500       | 0.02000   | 0                    | 75.7 | 70          | 130       |             |      |               |      |
| p-Dichlorobenzene                 | 0.0154           | 0.000500       | 0.02000   | 0                    | 77.2 | 70          | 130       |             |      |               |      |
| Styrene                           | 0.0161           | 0.000500       | 0.02000   | 0                    | 80.5 | 70          | 130       |             |      |               |      |
| Tetrachloroethene (PCE)           | 0.0148           | 0.000500       | 0.02000   | 0                    | 74.2 | 70          | 130       |             |      |               |      |
| Toluene                           | 0.0161           | 0.000500       | 0.02000   | 0                    | 80.5 | 70          | 130       |             |      |               |      |
| trans-1,2-Dichloroethylene        | 0.0165           | 0.000500       | 0.02000   | 0                    | 82.4 | 70          | 130       |             |      |               |      |
| Trichloroethene (TCE)             | 0.0162           | 0.000500       | 0.02000   | 0                    | 81.2 | 70          | 130       |             |      |               |      |
| Vinyl chloride                    | 0.0158           | 0.000500       | 0.02000   | 0                    | 79.2 | 70          | 130       |             |      |               |      |
| Xylenes, Total                    | 0.0492           | 0.000500       | 0.06000   | 0                    | 82.0 | 70          | 130       |             |      |               |      |
| 1,1,1,2-Tetrachloroethane         | 0.0163           | 0.000500       | 0.02000   | 0                    | 81.4 | 70          | 130       |             |      |               |      |
| 1,1,2,2-Tetrachloroethane         | 0.0163           | 0.000500       | 0.02000   | 0                    | 81.4 | 70          | 130       |             |      |               |      |
| 1,1-Dichloroethane                | 0.0168           | 0.000500       | 0.02000   | 0                    | 83.9 | 70          | 130       |             |      |               |      |
| 1,1-Dichloropropene               | 0.0169           | 0.000500       | 0.02000   | 0                    | 84.4 | 70          | 130       |             |      |               |      |
| 1,2,3-Trichloropropane            | 0.0167           | 0.000500       | 0.02000   | 0                    | 83.4 | 70          | 130       |             |      |               |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit  
C1 Sample container temperature is out of limit as specified at testcode  
ND Not Detected at the Reporting Limit  
H Holding times for preparation or analysis exceed  
PL Permit Limit

Original



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# QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

|                           |                  |                      |             |                           |               |          |           |             |      |          |      |
|---------------------------|------------------|----------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 20120811-01AMS | Sample Type: MS  | TestCode: EPA524.2_D | Units: mg/L | Prep Date:                | RunNo: 17859  |          |           |             |      |          |      |
| Client ID: BatchQC        | Batch ID: R17859 | TestNo: E524.2       |             | Analysis Date: 12/18/2020 | SeqNo: 258774 |          |           |             |      |          |      |
| Analyte                   | Result           | PQL                  | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|                            |        |          |         |          |      |    |     |  |  |  |  |
|----------------------------|--------|----------|---------|----------|------|----|-----|--|--|--|--|
| 1,3-Dichloropropane        | 0.0160 | 0.000500 | 0.02000 | 0        | 79.8 | 70 | 130 |  |  |  |  |
| 1,3-Dichloropropene        | 0.0309 | 0.000500 | 0.04000 | 0        | 77.3 | 70 | 130 |  |  |  |  |
| 2,2-Dichloropropane        | 0.0155 | 0.000500 | 0.02000 | 0        | 77.4 | 70 | 130 |  |  |  |  |
| Bromobenzene               | 0.0159 | 0.000500 | 0.02000 | 0        | 79.3 | 70 | 130 |  |  |  |  |
| Bromodichloromethane       | 0.0190 | 0.000500 | 0.02000 | 0.002890 | 80.3 | 70 | 130 |  |  |  |  |
| Bromoform                  | 0.0141 | 0.000500 | 0.02000 | 0        | 70.6 | 70 | 130 |  |  |  |  |
| Bromomethane               | 0.0157 | 0.000500 | 0.02000 | 0        | 78.5 | 70 | 130 |  |  |  |  |
| Chloroethane               | 0.0160 | 0.000500 | 0.02000 | 0        | 79.9 | 70 | 130 |  |  |  |  |
| Chloroform                 | 0.0811 | 0.000500 | 0.02000 | 0.06399  | 85.7 | 70 | 130 |  |  |  |  |
| Chloromethane              | 0.0163 | 0.000500 | 0.02000 | 0        | 81.4 | 70 | 130 |  |  |  |  |
| Dibromochloromethane       | 0.0151 | 0.000500 | 0.02000 | 0        | 75.6 | 70 | 130 |  |  |  |  |
| Dibromomethane             | 0.0160 | 0.000500 | 0.02000 | 0        | 79.9 | 70 | 130 |  |  |  |  |
| m-Dichlorobenzene          | 0.0153 | 0.000500 | 0.02000 | 0        | 76.5 | 70 | 130 |  |  |  |  |
| Methyl tert-butyl ether    | 0.0160 | 0.000500 | 0.02000 | 0        | 79.8 | 70 | 130 |  |  |  |  |
| o-Chlorotoluene            | 0.0164 | 0.000500 | 0.02000 | 0        | 82.2 | 70 | 130 |  |  |  |  |
| p-Chlorotoluene            | 0.0162 | 0.000500 | 0.02000 | 0        | 81.1 | 70 | 130 |  |  |  |  |
| Surr: Dibromofluoromethane | 0.0404 |          | 0.04000 |          | 101  | 80 | 120 |  |  |  |  |
| Surr: Toluene-d8           | 0.0396 |          | 0.04000 |          | 98.9 | 80 | 120 |  |  |  |  |
| Surr: 4-Bromofluorobenzene | 0.0403 |          | 0.04000 |          | 101  | 80 | 120 |  |  |  |  |

|                            |                  |                      |             |                           |               |          |           |             |      |          |      |
|----------------------------|------------------|----------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 20120811-01AMSD | Sample Type: MSD | TestCode: EPA524.2_D | Units: mg/L | Prep Date:                | RunNo: 17859  |          |           |             |      |          |      |
| Client ID: BatchQC         | Batch ID: R17859 | TestNo: E524.2       |             | Analysis Date: 12/18/2020 | SeqNo: 258775 |          |           |             |      |          |      |
| Analyte                    | Result           | PQL                  | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level.  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit

C1 Sample container temperature is out of limit as specified at testcode  
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceed  
PL Permit Limit

Original



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# QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

| Sample ID: 20120811-01AMSD        | BatchQC          | MSD    | SampType: | TestCode: EPA524.2_D | Units: mg/L | Prep Date:                | RunNo: 17859  |
|-----------------------------------|------------------|--------|-----------|----------------------|-------------|---------------------------|---------------|
| Client ID: BatchQC                | Batch ID: R17859 | Result | QOL       | SPK value            | SPK Ref Val | Analysis Date: 12/18/2020 | SeqNo: 258775 |
| Analyte                           |                  |        |           |                      |             |                           |               |
|                                   |                  |        |           |                      |             |                           |               |
| 1,1,1-Trichloroethane (1,1,1-TCA) |                  | 0.0179 | 0.000500  | 0.02000              | 0           | 70                        | 3.82          |
| 1,1,2-Trichloroethane             |                  | 0.0167 | 0.000500  | 0.02000              | 0           | 70                        | 4.85          |
| 1,1-Dichloroethylene              |                  | 0.0181 | 0.000500  | 0.02000              | 0           | 70                        | 5.10          |
| 1,2,4-Trichlorobenzene            |                  | 0.0155 | 0.000500  | 0.02000              | 0           | 70                        | 5.31          |
| 1,2-Dichloroethane (EDC)          |                  | 0.0166 | 0.000500  | 0.02000              | 0           | 70                        | 4.63          |
| 1,2-Dichloropropane               |                  | 0.0165 | 0.000500  | 0.02000              | 0           | 70                        | 2.70          |
| Benzene                           |                  | 0.0162 | 0.000500  | 0.02000              | 0           | 70                        | 3.08          |
| Carbon tetrachloride              |                  | 0.0176 | 0.000500  | 0.02000              | 0           | 70                        | 5.43          |
| cis-1,2-Dichloroethene            |                  | 0.0170 | 0.000500  | 0.02000              | 0           | 70                        | 6.07          |
| Dichloromethane                   |                  | 0.0173 | 0.000500  | 0.02000              | 0           | 70                        | 4.31          |
| Ethylbenzene                      |                  | 0.0169 | 0.000500  | 0.02000              | 0           | 70                        | 3.25          |
| Monochlorobenzene                 |                  | 0.0165 | 0.000500  | 0.02000              | 0           | 70                        | 3.02          |
| o-Dichlorobenzene                 |                  | 0.0160 | 0.000500  | 0.02000              | 0           | 70                        | 5.40          |
| p-Dichlorobenzene                 |                  | 0.0161 | 0.000500  | 0.02000              | 0           | 70                        | 4.43          |
| Styrene                           |                  | 0.0168 | 0.000500  | 0.02000              | 0           | 70                        | 4.20          |
| Tetrachloroethene (PCE)           |                  | 0.0153 | 0.000500  | 0.02000              | 0           | 70                        | 3.25          |
| Toluene                           |                  | 0.0167 | 0.000500  | 0.02000              | 0           | 70                        | 3.42          |
| trans-1,2-Dichloroethylene        |                  | 0.0174 | 0.000500  | 0.02000              | 0           | 70                        | 5.72          |
| Trichloroethene (TCE)             |                  | 0.0167 | 0.000500  | 0.02000              | 0           | 70                        | 2.85          |
| Vinyl chloride                    |                  | 0.0181 | 0.000500  | 0.02000              | 0           | 70                        | 13.3          |
| Xylenes, Total                    |                  | 0.0504 | 0.000500  | 0.06000              | 0           | 70                        | 2.41          |
| 1,1,1,2-Tetrachloroethane         |                  | 0.0167 | 0.000500  | 0.02000              | 0           | 70                        | 2.55          |
| 1,1,2,2-Tetrachloroethane         |                  | 0.0166 | 0.000500  | 0.02000              | 0           | 70                        | 1.83          |
| 1,1-Dichloroethane                |                  | 0.0173 | 0.000500  | 0.02000              | 0           | 70                        | 2.88          |
| 1,1-Dichloropropene               |                  | 0.0176 | 0.000500  | 0.02000              | 0           | 70                        | 3.95          |
| 1,2,3-Trichloropropane            |                  | 0.0169 | 0.000500  | 0.02000              | 0           | 70                        | 1.55          |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit  
C1 Sample container temperature is out of limit as specified at testcode  
ND Not Detected at the Reporting Limit  
H Holding times for preparation or analysis exceed  
PL Permit Limit

Original



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Website: www.nrclabs.com

# QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** EPA524.2\_DW

| Sample ID: 20120811-01AMSD |                  | SampType: MSD |          | TestCode: EPA524.2_D |             | Units: mg/L |          | Prep Date: |             | RunNo: 17859 |          |
|----------------------------|------------------|---------------|----------|----------------------|-------------|-------------|----------|------------|-------------|--------------|----------|
| Client ID: BatchQC         | Batch ID: R17859 | Result        | PQL      | SPK value            | SPK Ref Val | %REC        | LowLimit | HighLimit  | RPD Ref Val | %RPD         | RPDLimit |
| Analyte                    |                  |               |          |                      |             |             |          |            |             |              | Qual     |
| 1,3-Dichloropropane        |                  | 0.0165        | 0.000500 | 0.02000              | 0           | 82.5        | 70       | 130        | 0.01596     | 3.33         | 20       |
| 1,3-Dichloropropene        |                  | 0.0324        | 0.000500 | 0.04000              | 0           | 81.1        | 70       | 130        | 0.03091     | 4.86         | 20       |
| 2,2-Dichloropropane        |                  | 0.0162        | 0.000500 | 0.02000              | 0           | 80.9        | 70       | 130        | 0.01548     | 4.42         | 20       |
| Bromobenzene               |                  | 0.0162        | 0.000500 | 0.02000              | 0           | 81.2        | 70       | 130        | 0.01586     | 2.43         | 20       |
| Bromodichloromethane       |                  | 0.0201        | 0.000500 | 0.02000              | 0.002890    | 86.1        | 70       | 130        | 0.01895     | 5.94         | 20       |
| Bromoform                  |                  | 0.0152        | 0.000500 | 0.02000              | 0           | 75.8        | 70       | 130        | 0.01412     | 7.17         | 20       |
| Bromomethane               |                  | 0.0173        | 0.000500 | 0.02000              | 0           | 86.7        | 70       | 130        | 0.01570     | 9.93         | 20       |
| Chloroethane               |                  | 0.0185        | 0.000500 | 0.02000              | 0           | 92.4        | 70       | 130        | 0.01597     | 14.6         | 20       |
| Chloroform                 |                  | 0.0820        | 0.000500 | 0.02000              | 0.06399     | 90.1        | 70       | 130        | 0.08113     | 1.07         | 20       |
| Chloromethane              |                  | 0.0185        | 0.000500 | 0.02000              | 0           | 92.6        | 70       | 130        | 0.01627     | 12.9         | 20       |
| Dibromochloromethane       |                  | 0.0159        | 0.000500 | 0.02000              | 0           | 79.4        | 70       | 130        | 0.01511     | 5.03         | 20       |
| Dibromomethane             |                  | 0.0167        | 0.000500 | 0.02000              | 0           | 83.4        | 70       | 130        | 0.01598     | 4.29         | 20       |
| m-Dichlorobenzene          |                  | 0.0161        | 0.000500 | 0.02000              | 0           | 80.4        | 70       | 130        | 0.01530     | 4.91         | 20       |
| Methyl tert-butyl ether    |                  | 0.0164        | 0.000500 | 0.02000              | 0           | 82.0        | 70       | 130        | 0.01596     | 2.78         | 20       |
| o-Chlorotoluene            |                  | 0.0169        | 0.000500 | 0.02000              | 0           | 84.6        | 70       | 130        | 0.01643     | 3.00         | 20       |
| p-Chlorotoluene            |                  | 0.0166        | 0.000500 | 0.02000              | 0           | 83.0        | 70       | 130        | 0.01621     | 2.38         | 20       |
| Surr: Dibromofluoromethane |                  | 0.0412        |          | 0.04000              |             | 103         | 80       | 120        |             | 0            | 0        |
| Surr: Toluene-d8           |                  | 0.0402        |          | 0.04000              |             | 101         | 80       | 120        |             | 0            | 0        |
| Surr: 4-Bromofluorobenzene |                  | 0.0408        |          | 0.04000              |             | 102         | 80       | 120        |             | 0            | 0        |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level.  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit  
C1 Sample container temperature is out of limit as specified at testcode  
ND Not Detected at the Reporting Limit  
H Holding times for preparation or analysis exceed  
PL Permit Limit

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## QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** HG\_DW

|                     |                 |                 |             |                           |                                                        |
|---------------------|-----------------|-----------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: MB-10167 | SampType: MBLK  | TestCode: HG_DW | Units: mg/L | Prep Date: 12/20/2020     | RunNo: 17962                                           |
| Client ID: PBW      | Batch ID: 10167 | TestNo: E245.1  | E245.1      | Analysis Date: 12/21/2020 | SeqNo: 260919                                          |
| Analyte             | Result          | PQL             | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Mercury             | ND              | 0.000200        |             |                           |                                                        |

|                      |                 |                 |             |                           |                                                        |
|----------------------|-----------------|-----------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: LCS-10167 | SampType: LCS   | TestCode: HG_DW | Units: mg/L | Prep Date: 12/20/2020     | RunNo: 17962                                           |
| Client ID: LCSW      | Batch ID: 10167 | TestNo: E245.1  | E245.1      | Analysis Date: 12/21/2020 | SeqNo: 260920                                          |
| Analyte              | Result          | PQL             | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Mercury              | 0.00491         | 0.000200        | 0.005000    | 0                         | 98.2 85 115                                            |

|                               |                 |                 |             |                           |                                                        |
|-------------------------------|-----------------|-----------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20120951-01AMS     | SampType: MS    | TestCode: HG_DW | Units: mg/L | Prep Date: 12/20/2020     | RunNo: 17962                                           |
| Client ID: Bear Creek Greenwa | Batch ID: 10167 | TestNo: E245.1  | E245.1      | Analysis Date: 12/21/2020 | SeqNo: 260922                                          |
| Analyte                       | Result          | PQL             | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Mercury                       | 0.00491         | 0.000200        | 0.005000    | 0                         | 98.2 75 125                                            |

|                               |                 |                 |             |                           |                                                        |
|-------------------------------|-----------------|-----------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20120951-01AMSD    | SampType: MSD   | TestCode: HG_DW | Units: mg/L | Prep Date: 12/20/2020     | RunNo: 17962                                           |
| Client ID: Bear Creek Greenwa | Batch ID: 10167 | TestNo: E245.1  | E245.1      | Analysis Date: 12/21/2020 | SeqNo: 260923                                          |
| Analyte                       | Result          | PQL             | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Mercury                       | 0.00471         | 0.000200        | 0.005000    | 0                         | 94.2 75 125 0.004910 4.16 20                           |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. Mit Recovery outside control limits due to Matrix Interference RL Reporting Detection Limit C1 Sample container temperature is out of limit as specified at testcode ND Not Detected at the Reporting Limit H Holding times for preparation or analysis exceed PL Permit Limit

Original





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# QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** PAH\_W

|                     |                  |                 |             |                           |               |          |           |             |      |          |      |
|---------------------|------------------|-----------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: MB-10139 | SampleType: MBLK | TestCode: PAH_W | Units: µg/L | Prep Date: 12/18/2020     | RunNo: 17947  |          |           |             |      |          |      |
| Client ID: PBW      | Batch ID: 10139  | TestNo: SW8270C | SW8270      | Analysis Date: 12/18/2020 | SeqNo: 260572 |          |           |             |      |          |      |
| Analyte             | Result           | PQL             | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|                        |      |       |       |  |      |    |     |  |  |  |  |
|------------------------|------|-------|-------|--|------|----|-----|--|--|--|--|
| Acenaphthene           | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Acenaphthylene         | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Anthracene             | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Benzo(a)anthracene     | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Benzo(a)pyrene         | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Benzo(b)fluoranthene   | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Benzo(g,h,i)perylene   | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Benzo(k)fluoranthene   | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Chrysene               | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Dibenz(a,h)anthracene  | ND   | 1.00  |       |  |      |    |     |  |  |  |  |
| Fluoranthene           | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Fluorene               | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Indeno(1,2,3-cd)pyrene | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Naphthalene            | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Phenanthrene           | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Pyrene                 | ND   | 0.500 |       |  |      |    |     |  |  |  |  |
| Surr: 2-Fluorobiphenyl | 15.9 |       | 20.00 |  | 79.6 | 63 | 110 |  |  |  |  |
| Surr: 4-Terphenyl-d14  | 21.3 |       | 20.00 |  | 106  | 68 | 110 |  |  |  |  |

|                      |                 |                 |             |                           |               |          |           |             |      |          |      |
|----------------------|-----------------|-----------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: LCS-10139 | SampleType: LCS | TestCode: PAH_W | Units: µg/L | Prep Date: 12/18/2020     | RunNo: 17947  |          |           |             |      |          |      |
| Client ID: LCSW      | Batch ID: 10139 | TestNo: SW8270C | SW8270      | Analysis Date: 12/18/2020 | SeqNo: 260573 |          |           |             |      |          |      |
| Analyte              | Result          | PQL             | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|              |      |       |       |   |      |    |     |  |  |  |  |
|--------------|------|-------|-------|---|------|----|-----|--|--|--|--|
| Acenaphthene | 8.01 | 0.500 | 10.00 | 0 | 80.1 | 55 | 115 |  |  |  |  |
|--------------|------|-------|-------|---|------|----|-----|--|--|--|--|

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. MI Recovery outside control limits due to Matrix Interference. RL Reporting Detection Limit. C1 Sample container temperature is out of limit as specified at testcode. ND Not Detected at the Reporting Limit. H Holding times for preparation or analysis exceed PL Permit Limit.

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# QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** PAH\_W

| Sample ID: LCS-10139   | SampType: LCS   | TestCode: PAH_W | Units: µg/L | Prep Date: 12/18/2020     | RunNo: 17947  |          |           |             |      |          |      |
|------------------------|-----------------|-----------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Client ID: LCSW        | Batch ID: 10139 | TestNo: SW8270C | SW8270      | Analysis Date: 12/18/2020 | SeqNo: 260573 |          |           |             |      |          |      |
| Analyte                | Result          | PQL             | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Acenaphthylene         | 8.61            | 0.500           | 10.00       | 0                         | 86.1          | 50       | 120       |             |      |          |      |
| Anthracene             | 10.0            | 0.500           | 10.00       | 0                         | 100           | 70       | 120       |             |      |          |      |
| Benzo(a)anthracene     | 10.4            | 0.500           | 10.00       | 0                         | 104           | 70       | 125       |             |      |          |      |
| Benzo(a)pyrene         | 10.1            | 0.500           | 10.00       | 0                         | 101           | 70       | 130       |             |      |          |      |
| Benzo(b)fluoranthene   | 10.4            | 0.500           | 10.00       | 0                         | 104           | 70       | 125       |             |      |          |      |
| Benzo(g,h,i)perylene   | 11.0            | 0.500           | 10.00       | 0                         | 110           | 70       | 130       |             |      |          |      |
| Benzo(k)fluoranthene   | 9.94            | 0.500           | 10.00       | 0                         | 99.4          | 70       | 130       |             |      |          |      |
| Chrysene               | 10.3            | 0.500           | 10.00       | 0                         | 103           | 70       | 120       |             |      |          |      |
| Dibenz(a,h)anthracene  | 10.7            | 1.00            | 10.00       | 0                         | 107           | 70       | 130       |             |      |          |      |
| Fluoranthene           | 9.60            | 0.500           | 10.00       | 0                         | 96.0          | 70       | 125       |             |      |          |      |
| Fluorene               | 8.78            | 0.500           | 10.00       | 0                         | 87.8          | 65       | 125       |             |      |          |      |
| Indeno(1,2,3-cd)pyrene | 10.8            | 0.500           | 10.00       | 0                         | 108           | 70       | 130       |             |      |          |      |
| Naphthalene            | 6.81            | 0.500           | 10.00       | 0                         | 68.1          | 60       | 130       |             |      |          |      |
| Phenanthrene           | 9.13            | 0.500           | 10.00       | 0                         | 91.3          | 70       | 125       |             |      |          |      |
| Pyrene                 | 9.74            | 0.500           | 10.00       | 0                         | 97.4          | 70       | 130       |             |      |          |      |
| Surr: 2-Fluorobiphenyl | 16.2            |                 | 20.00       |                           | 81.0          | 63       | 110       |             |      |          |      |
| Surr: 4-Terphenyl-d14  | 20.0            |                 | 20.00       |                           | 100           | 68       | 110       |             |      |          |      |

|                               |                 |                 |             |                           |               |          |           |             |      |          |      |
|-------------------------------|-----------------|-----------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 20120951-01MMS     | SampType: MS    | TestCode: PAH_W | Units: µg/L | Prep Date: 12/18/2020     | RunNo: 17947  |          |           |             |      |          |      |
| Client ID: Bear Creek Greenwa | Batch ID: 10139 | TestNo: SW8270C | SW8270      | Analysis Date: 12/18/2020 | SeqNo: 260576 |          |           |             |      |          |      |
| Analyte                       | Result          | PQL             | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Acenaphthene                  | 7.66            | 0.500           | 10.00       | 0                         | 76.6          | 55       | 115       |             |      |          |      |
| Acenaphthylene                | 8.24            | 0.500           | 10.00       | 0                         | 82.4          | 50       | 120       |             |      |          |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. MI Recovery outside control limits due to Matrix Interference. RL Reporting Detection Limit. C1 Sample container temperature is out of limit as specified at testcode. ND Not Detected at the Reporting Limit. H Holding times for preparation or analysis exceed PL Permit Limit.

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# QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** PAH\_W

| Sample ID: 20120951-01MMS     | SampType: MS    | TestCode: PAH_W | Units: µg/L | Prep Date: 12/18/2020     | RunNo: 17947  |          |           |             |      |          |      |
|-------------------------------|-----------------|-----------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Client ID: Bear Creek Greenwa | Batch ID: 10139 | TestNo: SW8270C | SW8270      | Analysis Date: 12/18/2020 | SeqNo: 260576 |          |           |             |      |          |      |
| Analyte                       | Result          | PQL             | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Anthracene                    | 9.73            | 0.500           | 10.00       | 0                         | 97.3          | 70       | 120       |             |      |          |      |
| Benzo(a)anthracene            | 10.6            | 0.500           | 10.00       | 0                         | 106           | 70       | 125       |             |      |          |      |
| Benzo(a)pyrene                | 10.6            | 0.500           | 10.00       | 0.5400                    | 101           | 70       | 130       |             |      |          |      |
| Benzo(b)fluoranthene          | 10.8            | 0.500           | 10.00       | 0                         | 108           | 70       | 125       |             |      |          |      |
| Benzo(g,h,i)perylene          | 10.9            | 0.500           | 10.00       | 0                         | 109           | 70       | 130       |             |      |          |      |
| Benzo(k)fluoranthene          | 9.13            | 0.500           | 10.00       | 0                         | 91.3          | 70       | 130       |             |      |          |      |
| Chrysene                      | 9.97            | 0.500           | 10.00       | 0                         | 99.7          | 70       | 120       |             |      |          |      |
| Dibenz(a,h)anthracene         | 10.7            | 1.00            | 10.00       | 0                         | 107           | 70       | 130       |             |      |          |      |
| Fluoranthene                  | 10.6            | 0.500           | 10.00       | 0                         | 106           | 70       | 125       |             |      |          |      |
| Fluorene                      | 8.54            | 0.500           | 10.00       | 0                         | 85.4          | 65       | 125       |             |      |          |      |
| Indeno(1,2,3-cd)pyrene        | 11.0            | 0.500           | 10.00       | 0                         | 110           | 70       | 130       |             |      |          |      |
| Naphthalene                   | 6.80            | 0.500           | 10.00       | 0                         | 68.0          | 60       | 130       |             |      |          |      |
| Phenanthrene                  | 8.80            | 0.500           | 10.00       | 0                         | 88.0          | 70       | 125       |             |      |          |      |
| Pyrene                        | 10.9            | 0.500           | 10.00       | 0                         | 109           | 70       | 130       |             |      |          |      |
| Surr: 2-Fluorobiphenyl        | 15.6            |                 | 20.00       |                           | 77.8          | 63       | 110       |             |      |          |      |
| Surr: 4-Terphenyl-d14         | 19.3            |                 | 20.00       |                           | 96.4          | 68       | 110       |             |      |          |      |

|                               |        |                 |           |                 |      |             |           |                           |       |               |      |
|-------------------------------|--------|-----------------|-----------|-----------------|------|-------------|-----------|---------------------------|-------|---------------|------|
| Sample ID: 20120951-01MMSD    |        | SampType: MSD   |           | TestCode: PAH_W |      | Units: µg/L |           | Prep Date: 12/18/2020     |       | RunNo: 17947  |      |
| Client ID: Bear Creek Greenwa |        | Batch ID: 10139 |           | TestNo: SW8270C |      | SW8270      |           | Analysis Date: 12/18/2020 |       | SeqNo: 260577 |      |
| Analyte                       | Result | PQL             | SPK value | SPK Ref Val     | %REC | LowLimit    | HighLimit | RPD Ref Val               | %RPD  | RPDLimit      | Qual |
| Acenaphthene                  | 7.51   | 0.500           | 10.00     | 0               | 75.1 | 55          | 115       | 7.660                     | 1.98  | 25            |      |
| Acenaphthylene                | 8.03   | 0.500           | 10.00     | 0               | 80.3 | 50          | 120       | 8.240                     | 2.58  | 25            |      |
| Anthracene                    | 9.65   | 0.500           | 10.00     | 0               | 96.5 | 70          | 120       | 9.730                     | 0.826 | 25            |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. MI Recovery outside control limits due to Matrix Interference RL Reporting Detection Limit C1 Sample container temperature is out of limit as specified at testcode ND Not Detected at the Reporting Limit H Holding times for preparation or analysis exceed PL Permit Limit

Original



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## QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** PAH\_W

| Sample ID: 20120951-01MMSD    |        | SampType: MSD   |           | TestCode: PAH_W |      | Units: µg/L |           | Prep Date: 12/18/2020     |        | RunNo: 17947  |      |
|-------------------------------|--------|-----------------|-----------|-----------------|------|-------------|-----------|---------------------------|--------|---------------|------|
| Client ID: Bear Creek Greenwa |        | Batch ID: 10139 |           | TestNo: SW8270C |      | SW8270      |           | Analysis Date: 12/18/2020 |        | SeqNo: 260577 |      |
| Analyte                       | Result | PQL             | SPK value | SPK Ref Val     | %REC | LowLimit    | HighLimit | RPD Ref Val               | %RPD   | RPDLimit      | Qual |
| Benzo(a)anthracene            | 10.9   | 0.500           | 10.00     | 0               | 109  | 70          | 125       | 10.60                     | 2.97   | 25            |      |
| Benzo(a)pyrene                | 10.9   | 0.500           | 10.00     | 0.5400          | 103  | 70          | 130       | 10.59                     | 2.61   | 25            |      |
| Benzo(b)fluoranthene          | 10.8   | 0.500           | 10.00     | 0               | 108  | 70          | 125       | 10.77                     | 0.0929 | 25            |      |
| Benzo(g,h,i)perylene          | 11.4   | 0.500           | 10.00     | 0               | 114  | 70          | 130       | 10.93                     | 3.86   | 25            |      |
| Benzo(k)fluoranthene          | 9.62   | 0.500           | 10.00     | 0               | 96.2 | 70          | 130       | 9.130                     | 5.23   | 25            |      |
| Chrysene                      | 9.91   | 0.500           | 10.00     | 0               | 99.1 | 70          | 120       | 9.970                     | 0.604  | 25            |      |
| Dibenz(a,h)anthracene         | 11.2   | 1.00            | 10.00     | 0               | 112  | 70          | 130       | 10.66                     | 5.21   | 25            |      |
| Fluoranthene                  | 10.1   | 0.500           | 10.00     | 0               | 101  | 70          | 125       | 10.65                     | 4.91   | 25            |      |
| Fluorene                      | 8.42   | 0.500           | 10.00     | 0               | 84.2 | 65          | 125       | 8.540                     | 1.42   | 25            |      |
| Indeno(1,2,3-cd)pyrene        | 11.4   | 0.500           | 10.00     | 0               | 114  | 70          | 130       | 10.96                     | 4.29   | 25            |      |
| Naphthalene                   | 6.42   | 0.500           | 10.00     | 0               | 64.2 | 60          | 130       | 6.800                     | 5.75   | 25            |      |
| Phenanthrene                  | 8.78   | 0.500           | 10.00     | 0               | 87.8 | 70          | 125       | 8.800                     | 0.228  | 25            |      |
| Pyrene                        | 10.4   | 0.500           | 10.00     | 0               | 104  | 70          | 130       | 10.88                     | 4.70   | 25            |      |
| Surr: 2-Fluorobiphenyl        | 15.0   |                 | 20.00     |                 | 74.8 | 63          | 110       |                           | 0      | 0             |      |
| Surr: 4-Terphenyl-d14         | 18.9   |                 | 20.00     |                 | 94.4 | 68          | 110       |                           | 0      | 0             |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level.  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit  
C1 Sample container temperature is out of limit as specified at testcode  
ND Not Detected at the Reporting Limit  
H Holding times for preparation or analysis exceed  
PL Permit Limit

Original



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Website: www.nrclabs.com

## QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** PHOS-T\_W

|                          |                 |                    |             |                           |                                                        |
|--------------------------|-----------------|--------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: LCS-10182     | SampType: LCS   | TestCode: PHOS-T_W | Units: mg/L | Prep Date: 12/21/2020     | RunNo: 17974                                           |
| Client ID: LCSW          | Batch ID: 10182 | TestNo: A4500-P-E  | A4500-P-E   | Analysis Date: 12/21/2020 | SeqNo: 261502                                          |
| Analyte                  | Result          | PQL                | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Phosphorus, Total (As P) | 0.492           | 0.0250             | 0.5000      | 0                         | 98.3 80 120                                            |

|                          |                 |                    |             |                           |                                                        |
|--------------------------|-----------------|--------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: MB-10182      | SampType: MBLK  | TestCode: PHOS-T_W | Units: mg/L | Prep Date: 12/21/2020     | RunNo: 17974                                           |
| Client ID: PBW           | Batch ID: 10182 | TestNo: A4500-P-E  | A4500-P-E   | Analysis Date: 12/21/2020 | SeqNo: 261503                                          |
| Analyte                  | Result          | PQL                | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Phosphorus, Total (As P) | ND              | 0.0250             |             |                           |                                                        |

|                           |                 |                    |             |                           |                                                        |
|---------------------------|-----------------|--------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20120787-01GMS | SampType: MS    | TestCode: PHOS-T_W | Units: mg/L | Prep Date: 12/21/2020     | RunNo: 17974                                           |
| Client ID: BatchQC        | Batch ID: 10182 | TestNo: A4500-P-E  | A4500-P-E   | Analysis Date: 12/21/2020 | SeqNo: 261505                                          |
| Analyte                   | Result          | PQL                | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Phosphorus, Total (As P)  | 8.50            | 0.625              | 5.000       | 3.815                     | 93.6 80 120                                            |

|                            |                 |                    |             |                           |                                                        |
|----------------------------|-----------------|--------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20120787-01GMSD | SampType: MSD   | TestCode: PHOS-T_W | Units: mg/L | Prep Date: 12/21/2020     | RunNo: 17974                                           |
| Client ID: BatchQC         | Batch ID: 10182 | TestNo: A4500-P-E  | A4500-P-E   | Analysis Date: 12/21/2020 | SeqNo: 261506                                          |
| Analyte                    | Result          | PQL                | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Phosphorus, Total (As P)   | 8.86            | 0.625              | 5.000       | 3.815                     | 101 80 120 8.496 4.19 15                               |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. Mit Recovery outside control limits due to Matrix Interference. RL Reporting Detection Limit. C1 Sample container temperature is out of limit as specified at testcode. ND Not Detected at the Reporting Limit. H Holding times for preparation or analysis exceed PL Permit Limit.

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## QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** SOLIDS\_TSS\_W

|                        |                 |                      |             |                           |                                                        |
|------------------------|-----------------|----------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: MB-10154    | SampType: MBLK  | TestCode: SOLIDS_TSS | Units: mg/L | Prep Date: 12/18/2020     | RunNo: 17972                                           |
| Client ID: PBW         | Batch ID: 10154 | TestNo: A2540D       |             | Analysis Date: 12/18/2020 | SeqNo: 261090                                          |
| Analyte                | Result          | PQL                  | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Total Suspended Solids | ND              |                      | 1.00        |                           |                                                        |

|                        |                 |                      |             |                           |                                                        |
|------------------------|-----------------|----------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: LCS-10154   | SampType: LCS   | TestCode: SOLIDS_TSS | Units: mg/L | Prep Date: 12/18/2020     | RunNo: 17972                                           |
| Client ID: LCSW        | Batch ID: 10154 | TestNo: A2540D       |             | Analysis Date: 12/18/2020 | SeqNo: 261091                                          |
| Analyte                | Result          | PQL                  | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Total Suspended Solids | 920             | 40.0                 | 1000        | 0                         | 92.0 80 120                                            |

|                            |                 |                      |             |                           |                                                        |
|----------------------------|-----------------|----------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20120943-01BDUP | SampType: DUP   | TestCode: SOLIDS_TSS | Units: mg/L | Prep Date: 12/18/2020     | RunNo: 17972                                           |
| Client ID: BatchQC         | Batch ID: 10154 | TestNo: A2540D       |             | Analysis Date: 12/18/2020 | SeqNo: 261093                                          |
| Analyte                    | Result          | PQL                  | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Total Suspended Solids     | 36.0            | 4.00                 |             | 37.00                     | 2.74 5                                                 |

|                            |                 |                      |             |                           |                                                        |
|----------------------------|-----------------|----------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20120961-01BDUP | SampType: DUP   | TestCode: SOLIDS_TSS | Units: mg/L | Prep Date: 12/18/2020     | RunNo: 17972                                           |
| Client ID: BatchQC         | Batch ID: 10154 | TestNo: A2540D       |             | Analysis Date: 12/18/2020 | SeqNo: 261104                                          |
| Analyte                    | Result          | PQL                  | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Total Suspended Solids     | 6.00            | 4.00                 |             | 5.000                     | 18.2 5 R4                                              |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. MI Recovery outside control limits due to Matrix Interference. RL Reporting Detection Limit. C1 Sample container temperature is out of limit as specified at testcode. ND Not Detected at the Reporting Limit. H Holding times for preparation or analysis exceed PL Permit Limit.

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## QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** TKN\_W

|                           |                  |                 |             |                         |                                                        |
|---------------------------|------------------|-----------------|-------------|-------------------------|--------------------------------------------------------|
| Sample ID: MB-10324       | SampleType: MBLK | TestCode: TKN_W | Units: mg/L | Prep Date: 1/4/2021     | RunNo: 18249                                           |
| Client ID: PBW            | Batch ID: 10324  | TestNo: E351.2  | E351.1      | Analysis Date: 1/5/2021 | SeqNo: 265829                                          |
| Analyte                   | Result           | PQL             | SPK value   | SPK Ref Val             | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Nitrogen, Kjeldahl, Total | ND               | 0.625           |             |                         |                                                        |

|                           |                 |                 |             |                         |                                                        |
|---------------------------|-----------------|-----------------|-------------|-------------------------|--------------------------------------------------------|
| Sample ID: LCS-10324      | SampleType: LCS | TestCode: TKN_W | Units: mg/L | Prep Date: 1/4/2021     | RunNo: 18249                                           |
| Client ID: LCSW           | Batch ID: 10324 | TestNo: E351.2  | E351.1      | Analysis Date: 1/5/2021 | SeqNo: 265831                                          |
| Analyte                   | Result          | PQL             | SPK value   | SPK Ref Val             | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Nitrogen, Kjeldahl, Total | 4.78            | 0.625           | 5,000       | 0                       | 95.5 90 110                                            |

|                           |                 |                 |             |                         |                                                        |
|---------------------------|-----------------|-----------------|-------------|-------------------------|--------------------------------------------------------|
| Sample ID: 20120948-02BMS | SampleType: MS  | TestCode: TKN_W | Units: mg/L | Prep Date: 1/4/2021     | RunNo: 18249                                           |
| Client ID: BatchQC        | Batch ID: 10324 | TestNo: E351.2  | E351.1      | Analysis Date: 1/5/2021 | SeqNo: 265833                                          |
| Analyte                   | Result          | PQL             | SPK value   | SPK Ref Val             | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Nitrogen, Kjeldahl, Total | 6.08            | 1.25            | 10.00       | 0                       | 60.8 80 120                                            |

|                            |                 |                 |             |                         |                                                        |
|----------------------------|-----------------|-----------------|-------------|-------------------------|--------------------------------------------------------|
| Sample ID: 20120948-02BMSD | SampleType: MSD | TestCode: TKN_W | Units: mg/L | Prep Date: 1/4/2021     | RunNo: 18249                                           |
| Client ID: BatchQC         | Batch ID: 10324 | TestNo: E351.2  | E351.1      | Analysis Date: 1/5/2021 | SeqNo: 265834                                          |
| Analyte                    | Result          | PQL             | SPK value   | SPK Ref Val             | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Nitrogen, Kjeldahl, Total  | 4.67            | 1.25            | 10.00       | 0                       | 46.7 80 120                                            |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. MI Recovery outside control limits due to Matrix Interference. RL Reporting Detection Limit. C1 Sample container temperature is out of limit as specified at testcode. ND Not Detected at the Reporting Limit. H Holding times for preparation or analysis exceed PL Permit Limit.

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## QC SUMMARY REPORT

WO#: 20120951  
29-Jan-21

**Client:** Grants Pass Water Filtration  
**Project:** Bear Creek Greenway Bridge by US Cell

**TestCode:** TOC\_5310C

|                       |                  |                     |             |                           |               |          |           |             |      |          |      |
|-----------------------|------------------|---------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: LCS        | SampType: LCS    | TestCode: TOC_5310C | Units: mg/L | Prep Date:                | RunNo: 17915  |          |           |             |      |          |      |
| Client ID: LCSW       | Batch ID: R17915 | TestNo: A5310C      |             | Analysis Date: 12/19/2020 | SeqNo: 260224 |          |           |             |      |          |      |
| Analyte               | Result           | PQL                 | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Organic Carbon, Total | 1.91             | 0.100               | 2.000       | 0                         | 95.7          | 85       | 115       |             |      |          |      |

|                        |                         |                            |                    |                                  |                      |          |           |             |      |          |      |
|------------------------|-------------------------|----------------------------|--------------------|----------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MBLK</b> | SampType: <b>MBLK</b>   | TestCode: <b>TOC_5310C</b> | Units: <b>mg/L</b> | Prep Date:                       | RunNo: <b>17915</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>  | Batch ID: <b>R17915</b> | TestNo: <b>A5310C</b>      |                    | Analysis Date: <b>12/19/2020</b> | SeqNo: <b>260225</b> |          |           |             |      |          |      |
| Analyte                | Result                  | PQL                        | SPK value          | SPK Ref Val                      | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Organic Carbon, Total  | ND                      | 0.100                      |                    |                                  |                      |          |           |             |      |          |      |

|                           |  |                  |  |                     |           |             |      |                           |           |               |      |          |      |
|---------------------------|--|------------------|--|---------------------|-----------|-------------|------|---------------------------|-----------|---------------|------|----------|------|
| Sample ID: 20121088-01EMS |  | SampType: MS     |  | TestCode: TOC_5310C |           | Units: mg/L |      | Prep Date:                |           | RunNo: 17915  |      |          |      |
| Client ID: BatchQC        |  | Batch ID: R17915 |  | TestNo: A5310C      |           |             |      | Analysis Date: 12/23/2020 |           | SeqNo: 262199 |      |          |      |
| Analyte                   |  | Result           |  | PQL                 | SPK value | SPK Ref Val | %REC | LowLimit                  | HighLimit | RPD Ref Val   | %RPD | RPDLimit | Qual |
| Organic Carbon, Total     |  | 28.7             |  | 1.00                | 25.00     | 3.658       | 100  | 80                        | 120       |               |      |          |      |

|                            |                  |                     |             |                           |               |          |           |             |      |          |      |
|----------------------------|------------------|---------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 20121088-01EMSD | SampType: MSD    | TestCode: TOC_5310C | Units: mg/L | Prep Date:                | RunNo: 17915  |          |           |             |      |          |      |
| Client ID: BatchQC         | Batch ID: R17915 | TestNo: A5310C      |             | Analysis Date: 12/23/2020 | SeqNo: 262200 |          |           |             |      |          |      |
| Analyte                    | Result           | PQL                 | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Organic Carbon, Total      | 28.0             | 1.00                | 25.00       | 3.658                     | 97.5          | 80       | 120       | 28.72       | 2.42 | 25       |      |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. MI Recovery outside control limits due to Matrix Interference. RL Reporting Detection Limit. C1 Sample container temperature is out of limit as specified at testcode. ND Not Detected at the Reporting Limit. H Holding times for preparation or analysis exceed PL Permit Limit.

Original





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## Sample Log-In Check List

Client Name: **GrantsPassWF**

Work Order Number: **20120951**

RcptNo: **1**

Logged by: **Jeri Stringer** 12/17/2020 10:57:00 AM

Completed By: **Krizzle Calip** 12/17/2020 5:38:54 PM

Reviewed By: **Tamra Schmedemann** 1/12/2021 10:48:11 AM

*Jeri Stringer*  
*Krizzle Calip*  
*Tamra Schmedemann*

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐  
4. Shipping container/cooler in good condition? Yes ☒ No ☐  
Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒  
No. Seal Date: Signed By:  
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
6. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☐ No ☒ NA ☐

### Samples were collected the same day and chilled.

7. Sample(s) in proper container(s)? Yes ☒ No ☐  
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐  
10. Was preservative added to bottles? Yes ☒ No ☐ NA ☐  
HNO<sub>3</sub> pH<2  
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☒  
12. Were any sample containers received broken? Yes ☐ No ☒  
13. Does paperwork match bottle labels? Yes ☒ No ☐  
(Note discrepancies on chain of custody)  
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
15. Is it clear what analyses were requested? Yes ☒ No ☐  
16. Were all holding times able to be met? Yes ☒ No ☐  
(If no, notify customer for authorization.)

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

|                      |                      |       |                                                                                                                               |
|----------------------|----------------------|-------|-------------------------------------------------------------------------------------------------------------------------------|
| Person Notified:     | <input type="text"/> | Date: | <input type="text"/>                                                                                                          |
| By Whom:             | <input type="text"/> | Via:  | <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person |
| Regarding:           | <input type="text"/> |       |                                                                                                                               |
| Client Instructions: | <input type="text"/> |       |                                                                                                                               |

18. Additional remarks:

The sample submitted was beige in color and contained visible sediments.

### Cooler Information

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1         | 9.8     | Good      |             |         |           | TRS       |

## EPA 100.1 - Asbestos in Water (all sizes) Final Report

**Job Number:** 201437

**Client:** Neilson Research Corp  
**Address:** 245 S Grape St  
Medford, OR 97501

**Project Name:**

**Project No.:**

**PO Number:** 1371

**PWS ID:**

**Reference No.:**

**Report Number:** 201437R01

**Report Date:** 12/28/2020

Enclosed please find results for samples submitted to our laboratory. A list of samples and analyses follows:

| Lab/Cor Sample # | Client Sample # and Description                                      | Analysis                                     | Analysis Notes | Date Received: |
|------------------|----------------------------------------------------------------------|----------------------------------------------|----------------|----------------|
| 201437 - S1      | 20120951-01J - Bear Creek<br>Greenway Bridge, WA Water ID#: 11924178 | EPA 100.1 - Asbestos in<br>Water (all sizes) |                | 12/18/2020     |

EPA 100.1 - Asbestos in Water (all sizes) Preparation and analysis of the above samples was conducted in accordance with the EPA method #100.1. In this method, samples are taken from an affected water supply to measure the amount of asbestos contamination in the system. Samples with known organic interferences are treated with ozone/UV treatment to oxidize any suspended material in the water.

Each sample was shaken, then sonicated briefly in a Health Sonics Ultrasonic Cleaner to distribute particulate evenly. Several aliquots were filtered onto 0.1 µm, 25 mm mixed cellulose ester filters. Briefly, the samples were collapsed with a solution of N,N-dimethylformamide and acetic acid and if no ozone/UV treatment was applied, they were etched in a low temperature plasma etcher to remove the top surface of the filter and other organics. Then the samples were coated at high vacuum with a thin layer of carbon. This coated sample was then placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Each aliquot was examined at low magnification to determine the best particulate loading for analysis. Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification of 20,000x, with an accelerating voltage of 100 KV, scanning for fibers > 0.5µm in length. At least twenty grid openings were analyzed (or 100 structures) over three grid preparations. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**Disclaimer** The results reported relate only to the samples tested or analyzed; the laboratory is not responsible for data collected by personnel who are not affiliated with the laboratory. Results reported in both structures/cm3 and structures/mm2 are dependent on the sample volume and area. These parameters are measured and recorded by non-laboratory personnel and are not covered by the laboratory's accreditation. Interpretation of these results is the sole responsibility of the client.

If further clarification of these results is needed, please call us. Thank you for allowing the staff at Lab/Cor, Inc. the opportunity to provide you with the analytical services.

Sincerely,

  
x  
**Sierra Hinkle**  
Technician/Analyst

## EPA 100.1 - Asbestos in Water (all sizes) Summary Data - Final Report

Job Number: 201437      SEA  
Client: Neilson Research Corp

Report Number: 201437R01

Project Name:

Date Received: 12/18/2020

|                                                                 |                                             |
|-----------------------------------------------------------------|---------------------------------------------|
| Lab/Cor Sample No.: S1                                          | Sample Area/Mass/Volume (ml) : 800          |
| Client Sample No.: 20120951-01J                                 | Lab Filter Area (mm2) : 214                 |
| Description: Bear Creek Greenway Bridge, WA Water ID#: 11924178 | Grid Openings Analyzed : 20                 |
| Filter Fraction: 1      Aliquot Dilution: 1                     | Average Grid Opening Area : 0.011           |
| Begin Volume: 0.05 ml      Final Dilution: 1                    | Area Analyzed (mm2) : 0.22                  |
| Volume Taken: 0.05 ml                                           | Analytical Sens. (struc/MFL>10-um) : 19.455 |

|            |               |                |               |
|------------|---------------|----------------|---------------|
| Analyst(s) | Analysis Date | Microscope     | Magnification |
| SH         | 12/28/2020    | Hitachi 7000FA | 10000         |

| Structure Type                     | Concentration MFL>10-um | 95% Confidence Interval MFL>10-um | Structure Count <sup>1</sup> Prim/Total |
|------------------------------------|-------------------------|-----------------------------------|-----------------------------------------|
| TEM Water Amphibole - 100.1 Rules  | < 19.455                | 0 - 71.768 - Poisson              | 0                                       |
| TEM Water Chrysotile - 100.1 Rules | < 19.455                | 0 - 71.768 - Poisson              | 0                                       |
| TEM Water Total - 100.1 Rules      | < 19.455                | 0 - 71.768 - Poisson              | 0                                       |
| TEM Water >10µm Asbestos Length    | < 19.455                | 0 - 71.768 - Poisson              | 0                                       |

Reviewed by:

  
Sierra Hinkle  
Technician/Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## EPA 100.1 - Asbestos in Water (all sizes) Raw Data - Final Report

Job Number: 201437      SEA  
Client: Neilson Research Corp  
Project Name:  
Project No.:

EPA 100.1 Non Potable

Report Number: 201437R01  
Date Received: 12/18/2020

Lab/Cor Sample No: S1

Client Sample No: 20120951-01J

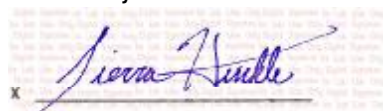
Description: Bear Creek Greenway Bridge, WA Water ID#: 11924178

| Gr | No. | Loc. | ID | Prim | Tot | Class | Length | Width | Aspect | Analyte | Elements | Comment | Count Categories |
|----|-----|------|----|------|-----|-------|--------|-------|--------|---------|----------|---------|------------------|
| G4 | 1   | C31  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G4 | 2   | C32  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G4 | 3   | E31  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G4 | 4   | E32  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G4 | 5   | F31  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G4 | 6   | F32  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G4 | 7   | G31  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G4 | 8   | G32  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G4 | 9   | H31  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G4 | 10  | H32  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G5 | 11  | C31  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G5 | 12  | C32  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G5 | 13  | E31  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G5 | 14  | E32  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G5 | 15  | F31  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G6 | 16  | C31  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G6 | 17  | C32  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G6 | 18  | E33  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G6 | 19  | H42  |    |      |     | NSD   |        |       |        |         |          |         |                  |
| G6 | 20  | H44  |    |      |     | NSD   |        |       |        |         |          |         |                  |

### Count Categories

|           |                                   |           |                                    |          |                               |
|-----------|-----------------------------------|-----------|------------------------------------|----------|-------------------------------|
| 100_1Amph | TEM Water Amphibole - 100.1 Rules | 100_1Chry | TEM Water Chrysotile - 100.1 Rules | 100_1Tot | TEM Water Total - 100.1 Rules |
| Asb>10    | TEM Water >10µm Asbestos Length   |           |                                    |          |                               |

Reviewed by:



Sierra Hinkle  
Technician/Analyst



908 North Temperance Ave. ▽ Clovis, CA 93611 ▽ Phone 559-275-2175 ▽ Fax 559-275-4422

NELAP Certification Number: CA00046 (HW)  
State Certification Number: CA1312 (WW & DW)

January 13, 2021

Neilson Research Corporation  
245 S. Grape St.  
Medford, Oregon 97501

Attn: Tamra Schmedemann

Subject: Report of Data: Case 94490

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Dear Ms. Schmedemann,

Two water samples were received on December 18, 2020. Written results are being provided on this January 13, 2021, for the requested analysis. All holding times were met.

For the PFAS analysis, the sample was extracted according to APPL SOP PRE537 and analyzed according to APPL SOP ANA537 and DoD QSM Table B-15. In the 210106A LCSD, PFHpA recovered above the upper control limit Corrective action: The client was notified. Some extracted internal standards recovered below the lower control limit.

For the EPA 1613 analysis, the sample was extracted according to the method.

For the PFAS by QSM 5.3 Table B-15, samples and Quality control recover below the lower control limits for some extracted internal standards.

If you have any questions or require further information, please contact us at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.

Paula McCartney, Laboratory Director  
APPL, Inc.

PM/lac  
Enclosure  
cc: File

## PFAS IN WATER

Neilson Research Corporation  
245 S. Grape St.  
Meford, OR 97501

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: NRC Labs

Project: 20120951

Sample ID: 20120951-01K

Sample Collection Date: 12/17/20

ARF: 94490

APPL ID: BA23493

QCG: #PFASC-210106A-260214

| Method | Analyte                    | Result       | PQL    | MDL  | Units | Extraction Date | Analysis Date |
|--------|----------------------------|--------------|--------|------|-------|-----------------|---------------|
| B-15   | 11-CL-PF3OUDS              | Not detected | 8.0    | 1.20 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | 9-CL-PF3ONS                | Not detected | 8.0    | 1.18 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | ADONA                      | Not detected | 8.0    | 1.30 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | FTS 4:2                    | Not detected | 8.0    | 0.54 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | FTS 6:2                    | 0.50 J       | 8.0    | 0.45 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | FTS 8:2                    | Not detected | 8.0    | 1.01 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | HFPO-DA                    | Not detected | 8.0    | 2.45 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | N-ETFOSA                   | Not detected | 8.0    | 3.00 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | N-ETFOSAA                  | Not detected | 8.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | N-ETFOSE                   | Not detected | 8.0    | 3.00 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | N-MEFOSA                   | Not detected | 8.0    | 3.00 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | N-MEFOSAA                  | Not detected | 8.0    | 0.36 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | N-MEFOSE                   | Not detected | 8.0    | 3.00 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | PFBA                       | 2.4 J        | 8.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | PFBS                       | 3.5 J        | 5.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | PFDA                       | 0.44 J       | 5.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | PFDOA                      | Not detected | 5.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | PFDS                       | Not detected | 5.0    | 0.32 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | PFHPA                      | 1.3 J        | 5.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | PFHPS                      | Not detected | 5.0    | 0.28 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | PFHXA                      | 3.1 J        | 5.0    | 0.32 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | PFHXS                      | 0.59 J       | 5.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | PFNA                       | 0.49 J       | 5.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | PFNS                       | Not detected | 8.0    | 0.40 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | PFOA                       | 2.6 J        | 5.0    | 0.41 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | PFOS                       | 3.2 J        | 5.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | PFOSA                      | Not detected | 8.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | PFPEA                      | 2.9 J        | 5.0    | 0.31 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | PFPEs                      | Not detected | 5.0    | 0.29 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | PFTEDA                     | Not detected | 8.0    | 0.43 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | PFTRDA                     | Not detected | 5.0    | 0.29 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | PFUDA                      | Not detected | 5.0    | 0.40 | ng/L  | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: 13C2-4:2FTS (S) | 94.6         | 50-150 |      | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: 13C2-6:2FTS (S) | 87.5         | 50-150 |      | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: 13C2-8:2FTS (S) | 75.7         | 50-150 |      | %     | 01/06/21        | 01/07/21      |

J = Estimated value.

# = Recovery (or RPD) is outside QC limits.

Quant Method: B15/2020\_12\_01  
Run #: 2021-12-0711  
Instrument: Saphira  
Sequence: 2021-01-06  
Dilution Factor: 1  
Initials: HHE

Printed: 01/08/21 1:20:29 PM  
APPL-F1-SC-NoMC-REG MDLs

## PFAS IN WATER

Neilson Research Corporation  
245 S. Grape St.  
Meford, OR 97501

Attn: NRC Labs

Project: 20120951

**Sample ID: 20120951-01K**

Sample Collection Date: 12/17/20

APPL Inc.

908 North Temperance Avenue  
Clovis, CA 93611

ARF: 94490

**APPL ID: BA23493**

QCG: #PFASC-210106A-260214

| Method | Analyte                      | Result | PQL    | MDL | Units | Extraction Date | Analysis Date |
|--------|------------------------------|--------|--------|-----|-------|-----------------|---------------|
| B-15   | SURROGATE: 13C2-PFDOA (S)    | 73.1   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: 13C2-PFTEDA (S)   | 50.0   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: 13C2D4-6:2FTS (S) | 103    | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: 13C3-HFPO-DA (S)  | 92.1   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: 13C3-PFBS (S)     | 74.1   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: 13C3-PFHXS (S)    | 84.5   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: 13C4-PFBA (S)     | 58.0   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: 13C4-PFHFA (S)    | 80.2   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: 13C5-PFHXA (S)    | 75.5   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: 13C5-PFPEA (S)    | 68.6   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: 13C6-PFDA (S)     | 70.9   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: 13C7-PFUDA (S)    | 80.4   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: 13C8-PFOA (S)     | 80.7   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: 13C8-PFOS (S)     | 77.7   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: 13C8-PFOSA (S)    | 76.8   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: 13C9-PFNA (S)     | 76.4   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: D3-MEFOSA (S)     | 60.0   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: D3-NMEFOSAA (S)   | 65.3   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: D5-ETFOSA (S)     | 48.0 # | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: D5-NETFOSAA (S)   | 65.9   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: D7-MEFOSE (S)     | 78.6   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| B-15   | SURROGATE: D9-ETFOSE (S)     | 73.0   | 50-150 |     | %     | 01/06/21        | 01/07/21      |

J = Estimated value.

# = Recovery (or RPD) is outside QC limits.

Quant Method: B15\2020\_12\_01  
Run #: 2021-12-0711  
Instrument: Saphira  
Sequence: 2021-01-06  
Dilution Factor: 1  
Initials: HHE

Printed: 01/08/21 1:20:29 PM  
APPL-F1-SC-NoMC-REG MDLs

## EPA 1613B DIOXINS FURANS LOW LEV

Neilson Research Corporation  
245 S. Grape St.  
Meford, OR 97501

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: NRC Labs

Project: 20120951

**Sample ID: 20120951-01G**

Sample Collection Date: 12/17/20

ARF: 94490

**APPL ID: BA23492**

QCG: \$1613LL-201228A-260053

| Method   | Analyte                                | Result       | PQL    | EDL/EMPC | Units | Ext Date | Analysis Date |
|----------|----------------------------------------|--------------|--------|----------|-------|----------|---------------|
| EPA 1613 | 1,2,3,4,6,7,8-HPCDD                    | Not detected | 25.0   | 18PC     | pg/L  | 12/28/20 | 01/03/21      |
| EPA 1613 | 1,2,3,4,6,7,8-HPCDF                    | Not detected | 25.0   | 1.4DL    | pg/L  | 12/28/20 | 01/03/21      |
| EPA 1613 | 1,2,3,4,7,8,9-HPCDF                    | Not detected | 25.0   | 2.0DL    | pg/L  | 12/28/20 | 01/03/21      |
| EPA 1613 | 1,2,3,4,7,8-HXCDD                      | Not detected | 25.0   | 2.7PC    | pg/L  | 12/28/20 | 01/03/21      |
| EPA 1613 | 1,2,3,4,7,8-HXCDF                      | Not detected | 25.0   | 1.1PC    | pg/L  | 12/28/20 | 01/03/21      |
| EPA 1613 | 1,2,3,6,7,8-HXCDD                      | Not detected | 25.0   | 3.1PC    | pg/L  | 12/28/20 | 01/03/21      |
| EPA 1613 | 1,2,3,6,7,8-HXCDF                      | Not detected | 25.0   | 1.5PC    | pg/L  | 12/28/20 | 01/03/21      |
| EPA 1613 | 1,2,3,7,8,9-HXCDD                      | Not detected | 25.0   | 0.45DL   | pg/L  | 12/28/20 | 01/03/21      |
| EPA 1613 | 1,2,3,7,8,9-HXCDF                      | Not detected | 25.0   | 3.1PC    | pg/L  | 12/28/20 | 01/03/21      |
| EPA 1613 | 1,2,3,7,8-PECDD                        | Not detected | 25.0   | 1.4PC    | pg/L  | 12/28/20 | 01/03/21      |
| EPA 1613 | 1,2,3,7,8-PECDF                        | Not detected | 25.0   | 2.8PC    | pg/L  | 12/28/20 | 01/03/21      |
| EPA 1613 | 2,3,4,6,7,8-HXCDF                      | Not detected | 25.0   | 1.5PC    | pg/L  | 12/28/20 | 01/03/21      |
| EPA 1613 | 2,3,4,7,8-PECDF                        | Not detected | 25.0   | 2.1PC    | pg/L  | 12/28/20 | 01/03/21      |
| EPA 1613 | 2,3,7,8-TCDD                           | Not detected | 5.0    | 0.61DL   | pg/L  | 12/28/20 | 01/03/21      |
| EPA 1613 | 2,3,7,8-TCDF                           | Not detected | 5.0    | 1.1PC    | pg/L  | 12/28/20 | 01/03/21      |
| EPA 1613 | OCDD                                   | 150          | 50.0   | 150PC    | pg/L  | 12/28/20 | 01/03/21      |
| EPA 1613 | OCDF                                   | 16 J         | 50.0   | 16PC     | pg/L  | 12/28/20 | 01/03/21      |
| EPA 1613 | TEQ                                    | 0.050        | NA     |          |       | 12/28/20 | 01/03/21      |
| EPA 1613 | SURROGATE: 13C-1,2,3,4,6,7,8-HPCDD (S) | 93.7         | 26-166 |          | %     | 12/28/20 | 01/03/21      |
| EPA 1613 | SURROGATE: 13C-1,2,3,4,6,7,8-HPCDF (S) | 90.2         | 21-158 |          | %     | 12/28/20 | 01/03/21      |
| EPA 1613 | SURROGATE: 13C-1,2,3,4,7,8,9-HPCDF (S) | 89.2         | 20-186 |          | %     | 12/28/20 | 01/03/21      |
| EPA 1613 | SURROGATE: 13C-1,2,3,4,7,8-HXCDD (S)   | 86.2         | 21-193 |          | %     | 12/28/20 | 01/03/21      |
| EPA 1613 | SURROGATE: 13C-1,2,3,4,7,8-HXCDF (S)   | 92.2         | 19-202 |          | %     | 12/28/20 | 01/03/21      |
| EPA 1613 | SURROGATE: 13C-1,2,3,6,7,8-HXCDD (S)   | 92.1         | 25-163 |          | %     | 12/28/20 | 01/03/21      |
| EPA 1613 | SURROGATE: 13C-1,2,3,6,7,8-HXCDF (S)   | 78.6         | 21-159 |          | %     | 12/28/20 | 01/03/21      |
| EPA 1613 | SURROGATE: 13C-1,2,3,7,8,9-HXCDF (S)   | 90.5         | 17-205 |          | %     | 12/28/20 | 01/03/21      |
| EPA 1613 | SURROGATE: 13C-1,2,3,7,8-PECDD (S)     | 92.7         | 21-227 |          | %     | 12/28/20 | 01/03/21      |
| EPA 1613 | SURROGATE: 13C-1,2,3,7,8-PECDF (S)     | 99.6         | 21-192 |          | %     | 12/28/20 | 01/03/21      |
| EPA 1613 | SURROGATE: 13C-2,3,4,6,7,8-HXCDF (S)   | 85.7         | 22-176 |          | %     | 12/28/20 | 01/03/21      |
| EPA 1613 | SURROGATE: 13C-2,3,4,7,8-PECDF (S)     | 93.2         | 13-328 |          | %     | 12/28/20 | 01/03/21      |
| EPA 1613 | SURROGATE: 13C-2,3,7,8-TCDD (S)        | 79.9         | 20-175 |          | %     | 12/28/20 | 01/03/21      |
| EPA 1613 | SURROGATE: 13C-2,3,7,8-TCDF (S)        | 84.1         | 22-152 |          | %     | 12/28/20 | 01/03/21      |
| EPA 1613 | SURROGATE: 13C-OCDD (S)                | 82.5         | 13-199 |          | %     | 12/28/20 | 01/03/21      |

J = Estimated value.

Quant Method: 201230\_1613  
Run #: 210102\_HR\_13  
Instrument: Magneto  
Sequence: 210102  
Dilution Factor: 1  
Initials: RP

Printed: 01/13/21 7:32:08 AM  
Form 1 - APPL Standard GC - No MC



## Method Blank PFAS IN WATER

Blank Name/QCG: 210106W-23480 - 260214  
Batch ID: #PFASC-210106A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

| Sample Type | Analyte                    | Result       | PQL    | MDL  | Units | Extraction Date | Analysis Date |
|-------------|----------------------------|--------------|--------|------|-------|-----------------|---------------|
| BLANK       | 11-CL-PF3OUDS              | Not detected | 8.0    | 1.20 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | 9-CL-PF3ONS                | Not detected | 8.0    | 1.18 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | ADONA                      | Not detected | 8.0    | 1.30 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | FTS 4:2                    | Not detected | 8.0    | 0.54 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | FTS 6:2                    | Not detected | 8.0    | 0.45 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | FTS 8:2                    | Not detected | 8.0    | 1.01 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | HFPO-DA                    | Not detected | 8.0    | 2.45 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | N-ETFOSA                   | Not detected | 8.0    | 3.00 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | N-ETFOSAA                  | Not detected | 8.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | N-ETFOSE                   | Not detected | 8.0    | 3.00 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | N-MEFOSA                   | Not detected | 8.0    | 3.00 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | N-MEFOSAA                  | Not detected | 8.0    | 0.36 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | N-MEFOSE                   | Not detected | 8.0    | 3.00 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | PFBA                       | Not detected | 8.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | PFBS                       | Not detected | 5.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | PFDA                       | Not detected | 5.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | PFDOA                      | Not detected | 5.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | PFDS                       | Not detected | 5.0    | 0.32 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | PFHPA                      | Not detected | 5.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | PFHPS                      | Not detected | 5.0    | 0.28 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | PFHXA                      | Not detected | 5.0    | 0.32 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | PFHXS                      | Not detected | 5.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | PFNA                       | Not detected | 5.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | PFNS                       | Not detected | 8.0    | 0.40 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | PFOA                       | Not detected | 5.0    | 0.41 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | PFOS                       | Not detected | 5.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | PFOSA                      | Not detected | 8.0    | 0.25 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | PFPEA                      | Not detected | 5.0    | 0.31 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | PFPEs                      | Not detected | 5.0    | 0.29 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | PFTEDA                     | Not detected | 8.0    | 0.43 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | PFTRDA                     | Not detected | 5.0    | 0.29 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | PFUDA                      | Not detected | 5.0    | 0.40 | ng/L  | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: 13C2-4:2FTS (S) | 94.3         | 50-150 |      | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: 13C2-6:2FTS (S) | 100          | 50-150 |      | %     | 01/06/21        | 01/07/21      |

Quant Method: B15\2020\_12  
Run #: 2021-12-073  
Instrument: Saphira  
Sequence: 2021-01-06  
Initials: HHE

GC SC-Blank-REG MDLs  
Printed: 01/08/21 1:20:29 PM

## Method Blank PFAS IN WATER

Blank Name/QCG: **210106W-23480 - 260214**  
Batch ID: #PFASC-210106A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

| Sample Type | Analyte                      | Result | PQL    | MDL | Units | Extraction Date | Analysis Date |
|-------------|------------------------------|--------|--------|-----|-------|-----------------|---------------|
| BLANK       | SURROGATE: 13C2-8:2FTS (S)   | 91.8   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: 13C2-PFDOA (S)    | 94.5   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: 13C2-PFTEDA (S)   | 62.5   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: 13C2D4-6:2FTS (S) | 109    | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: 13C3-HFPO-DA (S)  | 103    | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: 13C3-PFBS (S)     | 95.4   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: 13C3-PFHXS (S)    | 97.4   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: 13C4-PFBA (S)     | 88.3   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: 13C4-PFHPA (S)    | 88.2   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: 13C5-PFHXA (S)    | 88.2   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: 13C5-PFPEA (S)    | 91.2   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: 13C6-PFDA (S)     | 90.8   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: 13C7-PFUDA (S)    | 89.6   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: 13C8-PFOA (S)     | 96.1   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: 13C8-PFOS (S)     | 90.9   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: 13C8-PFOSA (S)    | 80.5   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: 13C9-PFNA (S)     | 89.2   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: D3-MEFOSA (S)     | 60.7   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: D3-NMEFOSAA (S)   | 85.0   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: D5-ETFOSA (S)     | 59.8   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: D5-NETFOSAA (S)   | 94.2   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: D7-MEFOSE (S)     | 86.9   | 50-150 |     | %     | 01/06/21        | 01/07/21      |
| BLANK       | SURROGATE: D9-ETFOSE (S)     | 88.1   | 50-150 |     | %     | 01/06/21        | 01/07/21      |

Quant Method: B15\2020\_12  
Run #: 2021-12-073  
Instrument: Saphira  
Sequence: 2021-01-06  
Initials: HHE

GC SC-Blank-REG MDLs  
Printed: 01/08/21 1:20:29 PM

# Laboratory Control Spike Recoveries

## PFAS IN WATER

APPL ID: 210106W-23480 LCS - 260214

Batch ID: #PFASC-210106A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

| Compound Name | Spike Lvl<br>ng/L | SPK Result<br>ng/L | DUP Result<br>ng/L | SPK %<br>Recovery | DUP %<br>Recovery | Recovery<br>Limits | RPD<br>% | RPD<br>Limits |
|---------------|-------------------|--------------------|--------------------|-------------------|-------------------|--------------------|----------|---------------|
| 11-CL-PF3OUDS | 4.72              | 4.51               | 3.92               | 95.6              | 83.1              | 54-138             | 14.0     | 30            |
| 9-CL-PF3ONS   | 4.67              | 4.16               | 4.23               | 89.2              | 90.7              | 62-140             | 1.7      | 30            |
| ADONA         | 4.73              | 4.98               | 4.58               | 105               | 96.9              | 61-169             | 8.4      | 30            |
| FTS 4:2       | 4.67              | 4.94               | 4.49               | 106               | 96.1              | 63-143             | 9.5      | 30            |
| FTS 6:2       | 4.75              | 3.81               | 3.93               | 80.3              | 82.8              | 64-140             | 3.1      | 30            |
| FTS 8:2       | 4.79              | 5.64               | 5.03               | 118               | 105               | 67-138             | 11.4     | 30            |
| HFPO-DA       | 5.00              | 4.59               | 4.23               | 91.8              | 84.6              | 44-175             | 8.2      | 30            |
| N-ETFOSA      | 5.00              | 6.24               | 5.65               | 125               | 113               | 76-137             | 9.9      | 30            |
| N-ETFOSAA     | 5.00              | 4.27               | 5.40               | 85.4              | 108               | 61-135             | 23.4     | 30            |
| N-ETFOSE      | 5.00              | 3.90               | 4.37               | 78.0              | 87.4              | 39-150             | 11.4     | 30            |
| N-MEFOSA      | 5.00              | 4.20               | 6.19               | 84.0              | 124               | 68-141             | 38.3 #   | 30            |
| N-MEFOSAA     | 5.00              | 5.34               | 5.51               | 107               | 110               | 65-136             | 3.1      | 30            |
| N-MEFOSE      | 5.00              | 4.46               | 4.49               | 89.2              | 89.8              | 68-144             | 0.67     | 30            |
| PFBA          | 5.00              | 5.38               | 5.88               | 108               | 118               | 73-129             | 8.9      | 30            |
| PFBS          | 4.42              | 4.99               | 5.21               | 113               | 118               | 72-130             | 4.3      | 30            |
| PFDA          | 5.00              | 4.89               | 5.73               | 97.8              | 115               | 71-129             | 15.8     | 30            |
| PFDOA         | 5.00              | 4.73               | 5.37               | 94.6              | 107               | 72-134             | 12.7     | 30            |
| PFDS          | 4.82              | 4.49               | 4.29               | 93.2              | 89.1              | 53-142             | 4.6      | 30            |
| PFHPA         | 5.00              | 6.04               | 7.06               | 121               | 141 #             | 72-130             | 15.6     | 30            |
| PFHPS         | 4.76              | 4.92               | 4.75               | 103               | 99.9              | 69-134             | 3.5      | 30            |
| PFHXA         | 5.00              | 5.42               | 5.32               | 108               | 106               | 72-129             | 1.9      | 30            |
| PFHXS         | 4.55              | 4.65               | 4.63               | 102               | 102               | 68-131             | 0.43     | 30            |
| PFNA          | 5.00              | 5.17               | 5.13               | 103               | 103               | 69-130             | 0.78     | 30            |
| PFNS          | 4.80              | 4.40               | 4.79               | 91.7              | 99.8              | 69-127             | 8.5      | 30            |

# = Recovery is outside QC limits.

Comments:

| <u>Primary</u>    | <u>SPK</u>     | <u>DUP</u>     |
|-------------------|----------------|----------------|
| Quant Method :    | B15/2020_12_01 | B15/2020_12_01 |
| Extraction Date : | 01/06/21       | 01/06/21       |
| Analysis Date :   | 01/07/21       | 01/07/21       |
| Instrument :      | Saphira        | Saphira        |
| Run :             | 2021-12-074    | 2021-12-075    |
| Initials :        | HHE            |                |

# Laboratory Control Spike Recoveries

## PFAS IN WATER

APPL ID: 210106W-23480 LCS - 260214

Batch ID: #PFASC-210106A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

| Compound Name                | Spike Lvl<br>ng/L | SPK Result<br>ng/L | DUP Result<br>ng/L | SPK %<br>Recovery | DUP %<br>Recovery | Recovery<br>Limits | RPD<br>% | RPD<br>Limits |
|------------------------------|-------------------|--------------------|--------------------|-------------------|-------------------|--------------------|----------|---------------|
| PFOA                         | 5.00              | 5.50               | 5.60               | 110               | 112               | 71-133             | 1.8      | 30            |
| PFOS                         | 4.64              | 4.39               | 4.79               | 94.7              | 103               | 65-140             | 8.7      | 30            |
| PFOSA                        | 5.00              | 5.28               | 6.53               | 106               | 131               | 67-137             | 21.2     | 30            |
| PFPEA                        | 5.00              | 5.67               | 6.09               | 113               | 122               | 72-129             | 7.1      | 30            |
| PFPEs                        | 4.69              | 4.98               | 5.20               | 106               | 111               | 71-127             | 4.3      | 30            |
| PFTEDA                       | 5.00              | 4.90               | 4.98               | 98.0              | 99.6              | 71-132             | 1.6      | 30            |
| PFTRDA                       | 5.00              | 4.48               | 5.19               | 89.6              | 104               | 65-144             | 14.7     | 30            |
| PFUDA                        | 5.00              | 5.49               | 4.97               | 110               | 99.4              | 69-133             | 9.9      | 30            |
| SURROGATE: 13C2-4:2FTS (S)   | 100               | 102                | 102                | 102               | 102               | 50-150             |          |               |
| SURROGATE: 13C2-6:2FTS (S)   | 100               | 115                | 102                | 115               | 102               | 50-150             |          |               |
| SURROGATE: 13C2-8:2FTS (S)   | 100               | 95.7               | 91.9               | 95.7              | 91.9              | 50-150             |          |               |
| SURROGATE: 13C2-PFDOA (S)    | 100               | 107                | 90.6               | 107               | 90.6              | 50-150             |          |               |
| SURROGATE: 13C2-PFTEDA (S)   | 100               | 69.1               | 57.4               | 69.1              | 57.4              | 50-150             |          |               |
| SURROGATE: 13C2D4-6:2FTS (S) | 100               | 114                | 113                | 114               | 113               | 50-150             |          |               |
| SURROGATE: 13C3-HFPO-DA (S)  | 100               | 113                | 122                | 113               | 122               | 50-150             |          |               |
| SURROGATE: 13C3-PFBS (S)     | 100               | 107                | 104                | 107               | 104               | 50-150             |          |               |
| SURROGATE: 13C3-PFHXS (S)    | 100               | 112                | 112                | 112               | 112               | 50-150             |          |               |
| SURROGATE: 13C4-PFBA (S)     | 100               | 105                | 107                | 105               | 107               | 50-150             |          |               |
| SURROGATE: 13C4-PFHFA (S)    | 100               | 105                | 104                | 105               | 104               | 50-150             |          |               |
| SURROGATE: 13C5-PFHXA (S)    | 100               | 109                | 110                | 109               | 110               | 50-150             |          |               |
| SURROGATE: 13C5-PFPEA (S)    | 100               | 104                | 106                | 104               | 106               | 50-150             |          |               |
| SURROGATE: 13C6-PFDA (S)     | 100               | 107                | 98.8               | 107               | 98.8              | 50-150             |          |               |
| SURROGATE: 13C7-PFUDA (S)    | 100               | 110                | 103                | 110               | 103               | 50-150             |          |               |
| SURROGATE: 13C8-PFOA (S)     | 100               | 111                | 104                | 111               | 104               | 50-150             |          |               |

# = Recovery is outside QC limits.

Comments:

| Primary           | SPK            | DUP            |
|-------------------|----------------|----------------|
| Quant Method :    | B15/2020_12_01 | B15/2020_12_01 |
| Extraction Date : | 01/06/21       | 01/06/21       |
| Analysis Date :   | 01/07/21       | 01/07/21       |
| Instrument :      | Saphira        | Saphira        |
| Run :             | 2021-12-074    | 2021-12-075    |
| Initials :        | HHE            |                |

## Laboratory Control Spike Recoveries

### PFAS IN WATER

APPL ID: 210106W-23480 LCS - 260214

Batch ID: #PFASC-210106A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

| Compound Name              | Spike Lvl<br>ng/L | SPK Result<br>ng/L | DUP Result<br>ng/L | SPK %<br>Recovery | DUP %<br>Recovery | Recovery<br>Limits | RPD<br>% | RPD<br>Limits |
|----------------------------|-------------------|--------------------|--------------------|-------------------|-------------------|--------------------|----------|---------------|
| SURROGATE: 13C8-PFOS (S)   | 100               | 109                | 103                | 109               | 103               | 50-150             |          |               |
| SURROGATE: 13C8-PFOSA (S)  | 100               | 81.6               | 86.8               | 81.6              | 86.8              | 50-150             |          |               |
| SURROGATE: 13C9-PFNA (S)   | 100               | 107                | 104                | 107               | 104               | 50-150             |          |               |
| SURROGATE: D3-MEFOSA (S)   | 100               | 57.3               | 59.8               | 57.3              | 59.8              | 50-150             |          |               |
| SURROGATE: D3-NMEFOSAA (S) | 100               | 104                | 85.2               | 104               | 85.2              | 50-150             |          |               |
| SURROGATE: D5-ETFOSA (S)   | 100               | 56.5               | 57.6               | 56.5              | 57.6              | 50-150             |          |               |
| SURROGATE: D5-NETFOSAA (S) | 100               | 101                | 89.8               | 101               | 89.8              | 50-150             |          |               |
| SURROGATE: D7-MEFOSE (S)   | 100               | 85.4               | 93.3               | 85.4              | 93.3              | 50-150             |          |               |
| SURROGATE: D9-ETFOSE (S)   | 100               | 81.4               | 90.8               | 81.4              | 90.8              | 50-150             |          |               |

# = Recovery is outside QC limits.

Comments: \_\_\_\_\_

| <u>Primary</u>    | <u>SPK</u>     | <u>DUP</u>     |
|-------------------|----------------|----------------|
| Quant Method :    | B15\2020_12_01 | B15\2020_12_01 |
| Extraction Date : | 01/06/21       | 01/06/21       |
| Analysis Date :   | 01/07/21       | 01/07/21       |
| Instrument :      | Saphira        | Saphira        |
| Run :             | 2021-12-074    | 2021-12-075    |
| Initials :        | HHE            |                |

# Method Blank

## EPA 1613B DIOXINS FURANS LOW LEV

Blank Name/QCG: 201228W-23492 - 260053  
Batch ID: \$1613LL-201228A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

| Sample Type | Analyte                                | Result       | PQL    | EDL/EMPC | Units | Ext Date | Analysis Date |
|-------------|----------------------------------------|--------------|--------|----------|-------|----------|---------------|
| BLANK       | 1,2,3,4,6,7,8-HPCDD                    | Not detected | 25.0   | 1.1PC    | pg/L  | 12/28/20 | 12/31/20      |
| BLANK       | 1,2,3,4,6,7,8-HPCDF                    | Not detected | 25.0   | 0.60PC   | pg/L  | 12/28/20 | 12/31/20      |
| BLANK       | 1,2,3,4,7,8,9-HPCDF                    | Not detected | 25.0   | 2.8PC    | pg/L  | 12/28/20 | 12/31/20      |
| BLANK       | 1,2,3,4,7,8-HXCDD                      | Not detected | 25.0   | 1.9PC    | pg/L  | 12/28/20 | 12/31/20      |
| BLANK       | 1,2,3,4,7,8-HXCDF                      | Not detected | 25.0   | 1.5PC    | pg/L  | 12/28/20 | 12/31/20      |
| BLANK       | 1,2,3,6,7,8-HXCDD                      | Not detected | 25.0   | 0.43DL   | pg/L  | 12/28/20 | 12/31/20      |
| BLANK       | 1,2,3,6,7,8-HXCDF                      | Not detected | 25.0   | 1.1PC    | pg/L  | 12/28/20 | 12/31/20      |
| BLANK       | 1,2,3,7,8,9-HXCDD                      | Not detected | 25.0   | 1.3PC    | pg/L  | 12/28/20 | 12/31/20      |
| BLANK       | 1,2,3,7,8,9-HXCDF                      | Not detected | 25.0   | 3.2PC    | pg/L  | 12/28/20 | 12/31/20      |
| BLANK       | 1,2,3,7,8-PECDD                        | Not detected | 25.0   | 1.4PC    | pg/L  | 12/28/20 | 12/31/20      |
| BLANK       | 1,2,3,7,8-PECDF                        | Not detected | 25.0   | 2.1PC    | pg/L  | 12/28/20 | 12/31/20      |
| BLANK       | 2,3,4,6,7,8-HXCDF                      | Not detected | 25.0   | 1.7PC    | pg/L  | 12/28/20 | 12/31/20      |
| BLANK       | 2,3,4,7,8-PECDF                        | Not detected | 25.0   | 1.6PC    | pg/L  | 12/28/20 | 12/31/20      |
| BLANK       | 2,3,7,8-TCDD                           | Not detected | 5.0    | 2.6PC    | pg/L  | 12/28/20 | 12/31/20      |
| BLANK       | 2,3,7,8-TCDF                           | Not detected | 5.0    | 0.69DL   | pg/L  | 12/28/20 | 12/31/20      |
| BLANK       | OCDD                                   | Not detected | 50.0   | 4.0PC    | pg/L  | 12/28/20 | 12/31/20      |
| BLANK       | OCDF                                   | Not detected | 50.0   | 2.3PC    | pg/L  | 12/28/20 | 12/31/20      |
| BLANK       | SURROGATE: 13C-1,2,3,4,6,7,8-HPCDD (S) | 88.0         | 26-166 |          | %     | 12/28/20 | 12/31/20      |
| BLANK       | SURROGATE: 13C-1,2,3,4,6,7,8-HPCDF (S) | 88.2         | 21-158 |          | %     | 12/28/20 | 12/31/20      |
| BLANK       | SURROGATE: 13C-1,2,3,4,7,8,9-HPCDF (S) | 84.9         | 20-186 |          | %     | 12/28/20 | 12/31/20      |
| BLANK       | SURROGATE: 13C-1,2,3,4,7,8-HXCDD (S)   | 91.6         | 21-193 |          | %     | 12/28/20 | 12/31/20      |
| BLANK       | SURROGATE: 13C-1,2,3,4,7,8-HXCDF (S)   | 95.6         | 19-202 |          | %     | 12/28/20 | 12/31/20      |
| BLANK       | SURROGATE: 13C-1,2,3,6,7,8-HXCDD (S)   | 92.6         | 25-163 |          | %     | 12/28/20 | 12/31/20      |
| BLANK       | SURROGATE: 13C-1,2,3,6,7,8-HXCDF (S)   | 80.5         | 21-159 |          | %     | 12/28/20 | 12/31/20      |
| BLANK       | SURROGATE: 13C-1,2,3,7,8,9-HXCDF (S)   | 91.9         | 17-205 |          | %     | 12/28/20 | 12/31/20      |
| BLANK       | SURROGATE: 13C-1,2,3,7,8-PECDD (S)     | 82.6         | 21-227 |          | %     | 12/28/20 | 12/31/20      |
| BLANK       | SURROGATE: 13C-1,2,3,7,8-PECDF (S)     | 87.5         | 21-192 |          | %     | 12/28/20 | 12/31/20      |
| BLANK       | SURROGATE: 13C-2,3,4,6,7,8-HXCDF (S)   | 88.2         | 22-176 |          | %     | 12/28/20 | 12/31/20      |
| BLANK       | SURROGATE: 13C-2,3,4,7,8-PECDF (S)     | 81.9         | 13-328 |          | %     | 12/28/20 | 12/31/20      |
| BLANK       | SURROGATE: 13C-2,3,7,8-TCDD (S)        | 77.5         | 20-175 |          | %     | 12/28/20 | 12/31/20      |
| BLANK       | SURROGATE: 13C-2,3,7,8-TCDF (S)        | 75.8         | 22-152 |          | %     | 12/28/20 | 12/31/20      |
| BLANK       | SURROGATE: 13C-OCDD (S)                | 76.5         | 13-199 |          | %     | 12/28/20 | 12/31/20      |

Quant Method: 201230\_1613  
Run #: 201231\_HR\_05  
Instrument: Magneto  
Sequence: 201231  
Initials: RP

## Laboratory Control Spike Recoveries

### EPA 1613B DIOXINS FURANS LOW LEV

APPL ID: 201228W-23492 LCS - 260053

Batch ID: #1613LL-201228A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

| Compound Name                        | Spike Lvl<br>pg/L | SPK Result<br>pg/L | DUP Result<br>pg/L | SPK %<br>Recovery | DUP %<br>Recovery | Recovery<br>Limits | RPD<br>% | RPD<br>Limits |
|--------------------------------------|-------------------|--------------------|--------------------|-------------------|-------------------|--------------------|----------|---------------|
| 1,2,3,4,6,7,8-HPCDD                  | 4000              | 3870               | 3920               | 96.8              | 98.0              | 70-140             | 1.3      | 30            |
| 1,2,3,4,6,7,8-HPCDF                  | 4000              | 3960               | 3930               | 99.0              | 98.3              | 82-122             | 0.76     | 30            |
| 1,2,3,4,7,8,9-HPCDF                  | 4000              | 4130               | 4120               | 103               | 103               | 78-138             | 0.24     | 30            |
| 1,2,3,4,7,8-HXCDD                    | 4000              | 4140               | 4330               | 104               | 108               | 70-164             | 4.5      | 30            |
| 1,2,3,4,7,8-HXCDF                    | 4000              | 3770               | 3790               | 94.3              | 94.8              | 72-134             | 0.53     | 30            |
| 1,2,3,6,7,8-HXCDD                    | 4000              | 4000               | 4240               | 100               | 106               | 76-134             | 5.8      | 30            |
| 1,2,3,6,7,8-HXCDF                    | 4000              | 4300               | 4280               | 108               | 107               | 84-130             | 0.47     | 30            |
| 1,2,3,7,8,9-HXCDD                    | 4000              | 3930               | 4110               | 98.3              | 103               | 64-162             | 4.5      | 30            |
| 1,2,3,7,8,9-HXCDF                    | 4000              | 4030               | 4050               | 101               | 101               | 78-130             | 0.50     | 30            |
| 1,2,3,7,8-PECDD                      | 4000              | 4120               | 4100               | 103               | 103               | 70-142             | 0.49     | 30            |
| 1,2,3,7,8-PECDF                      | 4000              | 4040               | 4150               | 101               | 104               | 80-134             | 2.7      | 30            |
| 2,3,4,6,7,8-HXCDF                    | 4000              | 4100               | 4150               | 103               | 104               | 70-156             | 1.2      | 30            |
| 2,3,4,7,8-PECDF                      | 4000              | 4220               | 4130               | 106               | 103               | 68-160             | 2.2      | 30            |
| 2,3,7,8-TCDD                         | 800               | 718                | 730                | 89.8              | 91.3              | 67-158             | 1.7      | 30            |
| 2,3,7,8-TCDF                         | 800               | 757                | 776                | 94.6              | 97.0              | 75-158             | 2.5      | 30            |
| OCDD                                 | 8000              | 8150               | 8310               | 102               | 104               | 78-144             | 1.9      | 30            |
| OCDF                                 | 8000              | 8410               | 8570               | 105               | 107               | 63-170             | 1.9      | 30            |
| <hr/>                                |                   |                    |                    |                   |                   |                    |          |               |
| SURROGATE: 13C-1,2,3,4,6,7,8-HPCDD   | 2000              | 1810               | 1610               | 90.5              | 80.5              | 26-166             |          |               |
| SURROGATE: 13C-1,2,3,4,6,7,8-HPCDF ( | 2000              | 1840               | 1580               | 92.0              | 79.0              | 21-158             |          |               |
| SURROGATE: 13C-1,2,3,4,7,8,9-HPCDF ( | 2000              | 1780               | 1580               | 89.0              | 79.0              | 20-186             |          |               |
| SURROGATE: 13C-1,2,3,4,7,8-HXCDD (S  | 2000              | 1720               | 1480               | 86.0              | 74.0              | 21-193             |          |               |
| SURROGATE: 13C-1,2,3,4,7,8-HXCDF (S  | 2000              | 1810               | 1640               | 90.5              | 82.0              | 19-202             |          |               |
| SURROGATE: 13C-1,2,3,6,7,8-HXCDD (S  | 2000              | 1870               | 1550               | 93.5              | 77.5              | 25-163             |          |               |
| SURROGATE: 13C-1,2,3,6,7,8-HXCDF (S  | 2000              | 1580               | 1410               | 79.0              | 70.5              | 21-159             |          |               |

Comments: \_\_\_\_\_

| <u>Primary</u>    | <u>SPK</u>   | <u>DUP</u>   |
|-------------------|--------------|--------------|
| Quant Method :    | 201230_1613  | 201230_1613  |
| Extraction Date : | 12/28/20     | 12/28/20     |
| Analysis Date :   | 12/31/20     | 12/31/20     |
| Instrument :      | Magneto      | Magneto      |
| Run :             | 201231_HR_03 | 201231_HR_04 |
| Initials :        | RP           |              |

# Laboratory Control Spike Recoveries

## EPA 1613B DIOXINS FURANS LOW LEV

APPL ID: 201228W-23492 LCS - 260053

Batch ID: #1613LL-201228A

APPL Inc.

908 North Temperance Avenue

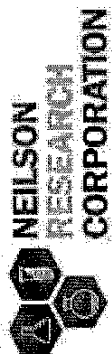
Clovis, CA 93611

| Compound Name                        | Spike Lvl<br>pg/L | SPK Result<br>pg/L | DUP Result<br>pg/L | SPK %<br>Recovery | DUP %<br>Recovery | Recovery<br>Limits | RPD<br>% | RPD<br>Limits |
|--------------------------------------|-------------------|--------------------|--------------------|-------------------|-------------------|--------------------|----------|---------------|
| SURROGATE: 13C-1,2,3,7,8,9-HXCDF (S) | 2000              | 1790               | 1530               | 89.5              | 76.5              | 17-205             |          |               |
| SURROGATE: 13C-1,2,3,7,8-PECDD (S)   | 2000              | 1590               | 1410               | 79.5              | 70.5              | 21-227             |          |               |
| SURROGATE: 13C-1,2,3,7,8-PECDF (S)   | 2000              | 1700               | 1500               | 85.0              | 75.0              | 21-192             |          |               |
| SURROGATE: 13C-2,3,4,6,7,8-HXCDF (S) | 2000              | 1740               | 1520               | 87.0              | 76.0              | 22-176             |          |               |
| SURROGATE: 13C-2,3,4,7,8-PECDF (S)   | 2000              | 1540               | 1390               | 77.0              | 69.5              | 13-328             |          |               |
| SURROGATE: 13C-2,3,7,8-TCDD (S)      | 2000              | 1600               | 1380               | 80.0              | 69.0              | 20-175             |          |               |
| SURROGATE: 13C-2,3,7,8-TCDF (S)      | 2000              | 1480               | 1330               | 74.0              | 66.5              | 22-152             |          |               |
| SURROGATE: 13C-OCDD (S)              | 4000              | 3410               | 2820               | 85.3              | 70.5              | 13-199             |          |               |

Comments:

| <u>Primary</u>    | <u>SPK</u>   | <u>DUP</u>   |
|-------------------|--------------|--------------|
| Quant Method :    | 201230_1613  | 201230_1613  |
| Extraction Date : | 12/28/20     | 12/28/20     |
| Analysis Date :   | 12/31/20     | 12/31/20     |
| Instrument :      | Magneto      | Magneto      |
| Run :             | 201231_HR_03 | 201231_HR_04 |
| Initials :        | RP           |              |





CHAIN OF CUSTODY RECORD

Omega COCID 215 PAGE: 1 OF: 1

94496

ADDRESS  
Neilson Research Corporation  
245 S Grape St  
Medford, OR 97501  
TEL: (541) 770-5678  
FAX: (541) 770-2901  
Website: www.nrclabs.com



|                                    |              |                                           |             |        |                       |                      |
|------------------------------------|--------------|-------------------------------------------|-------------|--------|-----------------------|----------------------|
| SUB CONTRACTOR: Appl Inc           |              | COMPANY: Agriculture & Priority Pollutant |             |        |                       |                      |
| ADDRESS: 908 N Temperance Ave      |              |                                           |             |        |                       |                      |
| CITY, STATE, ZIP: Clovis, CA 93611 |              |                                           |             |        |                       |                      |
| PHONE: (559) 275-2175              |              | FAX:                                      |             |        |                       |                      |
| ACCOUNT #:                         |              | PO #: 1370                                |             |        |                       |                      |
| ITEM #                             | SAMPLE ID    | Client Sample ID                          | Bottle Type | MATRIX | DATE COLLECTED        | NUMBER OF CONTAINERS |
| 1                                  | 20120951-01G | Bear Creek Greenwa                        | AMB 1L      | W      | 12/17/2020 8:10:00 AM | 2                    |
| 2                                  | 20120951-01K | Bear Creek Greenwa                        | HDPE 250ML  | W      | 12/17/2020 8:10:00 AM | 2                    |
| ANALYTICAL PARAMETERS              |              |                                           |             |        |                       |                      |
| SUB-MISC (SUB-MISC)                |              |                                           |             |        |                       |                      |
| SUB-DIOXINS/FURANS (E1613)         |              |                                           |             |        |                       |                      |
| PFOS & PFAS                        |              |                                           |             |        |                       |                      |
| SPECIAL INSTRUCTIONS / COMMENTS:   |              |                                           |             |        |                       |                      |

|                                                                                                                                                                            |                                   |                               |                                  |                                 |                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------|----------------------------------|---------------------------------|---------------------------------|
| Relinquished By:                                                                                                                                                           | Date: 12/17/2020                  | Time: 11:35 AM                | Received By:                     | Date: 12-18-20                  | Time: 9:55                      |
| Relinquished By:                                                                                                                                                           | Date:                             | Time:                         | Received By:                     | Date:                           | Time:                           |
| Relinquished By:                                                                                                                                                           | Date:                             | Time:                         | Received By:                     | Date:                           | Time:                           |
| TAT:                                                                                                                                                                       | Standard <input type="checkbox"/> | RUSH <input type="checkbox"/> | Next BD <input type="checkbox"/> | 2nd BD <input type="checkbox"/> | 3rd BD <input type="checkbox"/> |
| Note: RUSH requests will incur surcharges!                                                                                                                                 |                                   |                               |                                  |                                 |                                 |
| REPORT TRANSMITTAL DESIRED:<br><input type="checkbox"/> HARD COPY (extra cost) <input type="checkbox"/> FAX <input type="checkbox"/> EMAIL <input type="checkbox"/> ONLINE |                                   |                               |                                  |                                 |                                 |
| FOR LAB USE ONLY<br>Temp of samples 12B 1.5/-0.4°C Attempt to Cool ?<br>Comments: -0.4°C                                                                                   |                                   |                               |                                  |                                 |                                 |



1435 Norjohn Court, Unit 1, Burlington, ON, Canada L7L 0E6  
Phone: 905-331-3111, FAX: 905-331-4567

## Certificate of Analysis

**ALS Project Contact:** Breanne Dusureault  
**ALS Project ID:** NRC300  
**ALS WO#:** L2544018  
**Date of Report:** 27-Jan-21  
**Date of Sample Receipt:** 29-Dec-20

**Client Name:** Neilson Research Corporation  
**Client Address:** 245 South Grape St.  
Medford, OR  
97501  
**Client Contact:** Tamra Schmedemann  
**Client Project ID:** PO# 1389

**COMMENTS:** Brominated Flame Retardants by EPA 1614

A handwritten signature in black ink, appearing to read "R. McLeod".

Certified by: \_\_\_\_\_

Ron McLeod, PhD  
Director, Air Toxics & Special Chemistries, Life Sciences

Results in this certificate relate only to the samples as submitted to the laboratory.

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| ALS Life Sciences                                                              |                                                  |
|--------------------------------------------------------------------------------|--------------------------------------------------|
| Sample Analysis Summary Report                                                 |                                                  |
| Sample Name                                                                    | 20120951-01L<br>BEAR CREEK<br>GREENWAY<br>BRIDGE |
| ALS Sample ID                                                                  | L2544018-1                                       |
| Sample Size                                                                    | 0.92                                             |
| Sample size units                                                              | L                                                |
| Percent Moisture                                                               | n/a                                              |
| Sample Matrix                                                                  | Water                                            |
| Sampling Date                                                                  | 17-Dec-20                                        |
| Extraction Date                                                                | 19-Jan-21                                        |
| <b>Target Analytes</b>                                                         | <b>pg/L</b>                                      |
| BDE 10                                                                         | <1.2                                             |
| BDE 7                                                                          | <1.2                                             |
| BDE 8/11                                                                       | <0.83                                            |
| BDE 12/13                                                                      | <0.71                                            |
| BDE 15                                                                         | 3.70                                             |
| BDE 30                                                                         | <14                                              |
| BDE 32                                                                         | <1.2                                             |
| BDE 17/25                                                                      | <15                                              |
| BDE 28/33                                                                      | 27.0                                             |
| BDE 35                                                                         | <2.5                                             |
| BDE 37                                                                         | 2.20                                             |
| PBB 9                                                                          | <0.54                                            |
| PBB 52                                                                         | <0.79                                            |
| HBB                                                                            | 7.61                                             |
| BDE 75                                                                         | <3.6                                             |
| BDE 51                                                                         | 4.03                                             |
| BDE 49                                                                         | 50.4                                             |
| BDE 71                                                                         | 6.29                                             |
| BDE 47                                                                         | 743                                              |
| BDE 79                                                                         | 9.24                                             |
| BDE 66                                                                         | 26.2                                             |
| BDE 77                                                                         | <0.71                                            |
| PBB 101                                                                        | <1.0                                             |
| BDE 100                                                                        | 182                                              |
| BDE 119/120                                                                    | <1.7                                             |
| BDE 99                                                                         | 810                                              |
| BDE 116                                                                        | <2.9                                             |
| BDE 83                                                                         | <2.3                                             |
| BDE 118                                                                        | <3.5                                             |
| BDE 85                                                                         | 32.3                                             |
| BDE 126                                                                        | <1.0                                             |
| BDE 105                                                                        | <2.1                                             |
| PBB 153                                                                        | 4.42                                             |
| BDE 155                                                                        | 4.41                                             |
| BDE 154                                                                        | 79.4                                             |
| BDE 153                                                                        | 85.3                                             |
| BDE 140                                                                        | <4.9                                             |
| BDE 138/166                                                                    | 13.2                                             |
| BDE 156                                                                        | <8.2                                             |
| BDE 128                                                                        | <7.1                                             |
| BDE 184                                                                        | <1.5                                             |
| BDE 183                                                                        | <19                                              |
| BDE 191                                                                        | <3.6                                             |
| BDE 181                                                                        | <3.6                                             |
| BDE 190                                                                        | <5.2                                             |
| PBB 180                                                                        | <3.8                                             |
| BDE 197                                                                        | 20.5                                             |
| BDE 203                                                                        | 32.6                                             |
| BDE 196                                                                        | 25.8                                             |
| PBB 194                                                                        | <1.4                                             |
| BDE 208                                                                        | 166                                              |
| BDE 207                                                                        | 243                                              |
| BDE 206                                                                        | 416                                              |
| PBB 206                                                                        | <6.5                                             |
| PBB 209                                                                        | <5.1                                             |
| BDE 209                                                                        | 10100                                            |
| DBDPE                                                                          | 5620                                             |
| <b>PBDE Homologue Group Totals<br/>(Sum of detected PBDEs including EMPCs)</b> | <b>pg/L</b>                                      |
| Di BDE                                                                         | 3.70                                             |
| Tri BDE                                                                        | 60.7                                             |
| Tetra BDE                                                                      | 843                                              |
| Penta BDE                                                                      | 1030                                             |
| Hexa BDE                                                                       | 187                                              |
| Hepta BDE                                                                      | 19.0                                             |
| Octa BDE                                                                       | 78.9                                             |
| Nona BDE                                                                       | 825                                              |
| Deca BDE                                                                       | 10100                                            |
| Total PBDEs                                                                    | 13100                                            |
| <b>Extraction Standards</b>                                                    | <b>% Rec</b>                                     |
| 13C12 BDE 15                                                                   | 55                                               |
| 13C12 BDE 28                                                                   | 67                                               |
| 13C6 HBB                                                                       | 57                                               |
| 13C12 BDE 47                                                                   | 66                                               |
| 13C12 BDE 77                                                                   | 66                                               |
| 13C12 BDE 100                                                                  | 52                                               |
| 13C12 BDE 99                                                                   | 62                                               |
| 13C12 BDE 126                                                                  | 61                                               |
| 13C12 BDE 154                                                                  | 54                                               |
| 13C12 BDE 153                                                                  | 69                                               |
| 13C12 BDE 183                                                                  | 66                                               |
| 13C12 BDE 197                                                                  | 68                                               |
| 13C12 BDE 207                                                                  | 67                                               |
| 13C12 BDE 209                                                                  | 80                                               |
| 13C14 DBDPE                                                                    | 77                                               |
| <b>Cleanup Standard</b>                                                        |                                                  |
| 13C12 BDE 138 Cleanup                                                          | 67                                               |

| ALS Life Sciences                                                              |              |                           |
|--------------------------------------------------------------------------------|--------------|---------------------------|
| Quality Control Summary Report                                                 |              |                           |
| Sample Name                                                                    | Method Blank | Laboratory Control Sample |
| ALS Sample ID                                                                  | WG3468531-1  | WG3468531-2               |
| Sample Size                                                                    | 1.00         | 1                         |
| Sample size units                                                              | L            | n/a                       |
| Percent Moisture                                                               | n/a          | n/a                       |
| Sample Matrix                                                                  | QC           | QC                        |
| Sampling Date                                                                  | n/a          | n/a                       |
| Extraction Date                                                                | 19-Jan-21    | 19-Jan-21                 |
| <b>Target Analytes</b>                                                         | <b>pg/L</b>  | <b>% Rec</b>              |
| BDE 10                                                                         | <0.98        | 47                        |
| BDE 7                                                                          | <0.93        | 61                        |
| BDE 8/11                                                                       | <0.66        | 89                        |
| BDE 12/13                                                                      | <0.57        | 81                        |
| BDE 15                                                                         | <0.49        | 97                        |
| BDE 30                                                                         | <1.5         | 61                        |
| BDE 32                                                                         | <1.1         | 101                       |
| BDE 17/25                                                                      | <1.4         | 92                        |
| BDE 28/33                                                                      | <1.5         | 99                        |
| BDE 35                                                                         | <0.90        | 109                       |
| BDE 37                                                                         | <0.93        | 115                       |
| PBB 9                                                                          | <0.44        | 111                       |
| PBB 52                                                                         | <0.59        | 114                       |
| HBB                                                                            | 6.10         | 97                        |
| BDE 75                                                                         | <0.90        | 104                       |
| BDE 51                                                                         | <0.78        | 109                       |
| BDE 49                                                                         | <1.6         | 111                       |
| BDE 71                                                                         | <1.2         | 111                       |
| BDE 47                                                                         | 59.3         | 102                       |
| BDE 79                                                                         | <0.76        | 104                       |
| BDE 66                                                                         | <1.3         | 103                       |
| BDE 77                                                                         | <0.88        | 97                        |
| PBB 101                                                                        | <0.74        | 85                        |
| BDE 100                                                                        | 10.0         | 95                        |
| BDE 119/120                                                                    | <1.8         | 107                       |
| BDE 99                                                                         | 49.1         | 101                       |
| BDE 116                                                                        | <2.9         | 80                        |
| BDE 83                                                                         | <2.3         | 85                        |
| BDE 118                                                                        | <2.0         | 94                        |
| BDE 85                                                                         | <2.9         | 107                       |
| BDE 126                                                                        | <1.2         | 96                        |
| BDE 105                                                                        | <2.1         | 105                       |
| PBB 153                                                                        | <1.0         | 107                       |
| BDE 155                                                                        | <0.96        | 84                        |
| BDE 154                                                                        | <3.4         | 99                        |
| BDE 153                                                                        | <2.5         | 97                        |
| BDE 140                                                                        | <2.7         | 107                       |
| BDE 138/166                                                                    | <5.1         | 117                       |
| BDE 156                                                                        | <6.6         | 99                        |
| BDE 128                                                                        | <5.8         | 98                        |
| BDE 184                                                                        | <1.1         | 107                       |
| BDE 183                                                                        | <1.7         | 101                       |
| BDE 191                                                                        | <2.6         | 105                       |
| BDE 181                                                                        | <2.6         | 93                        |
| BDE 190                                                                        | <3.8         | 95                        |
| PBB 180                                                                        | <3.0         | 96                        |
| BDE 197                                                                        | <1.8         | 96                        |
| BDE 203                                                                        | <2.4         | 104                       |
| BDE 196                                                                        | <2.1         | 98                        |
| PBB 194                                                                        | <2.4         | 95                        |
| BDE 208                                                                        | <3.1         | 111                       |
| BDE 207                                                                        | <3.0         | 97                        |
| BDE 206                                                                        | <2.9         | 101                       |
| PBB 206                                                                        | <9.3         | 118                       |
| PBB 209                                                                        | <3.7         | 111                       |
| BDE 209                                                                        | <48          | 99                        |
| DBDPE                                                                          | <140         | 104                       |
| <b>PBDE Homologue Group Totals<br/>(Sum of detected PBDEs including EMPCs)</b> | <b>pg/L</b>  |                           |
| Di BDE                                                                         | <0.49        |                           |
| Tri BDE                                                                        | 1.50         |                           |
| Tetra BDE                                                                      | 60.9         |                           |
| Penta BDE                                                                      | 62.0         |                           |
| Hexa BDE                                                                       | 3.40         |                           |
| Hepta BDE                                                                      | <1.1         |                           |
| Octa BDE                                                                       | <1.8         |                           |
| Nona BDE                                                                       | 6.10         |                           |
| Deca BDE                                                                       | 48.0         |                           |
| Total PBDEs                                                                    | 182          |                           |
| <b>Extraction Standards</b>                                                    | <b>% Rec</b> | <b>% Rec</b>              |
| 13C12 BDE 15                                                                   | 65           | 65                        |
| 13C12 BDE 28                                                                   | 78           | 79                        |
| 13C6 HBB                                                                       | 66           | 61                        |
| 13C12 BDE 47                                                                   | 83           | 74                        |
| 13C12 BDE 77                                                                   | 77           | 69                        |
| 13C12 BDE 100                                                                  | 66           | 53                        |
| 13C12 BDE 99                                                                   | 70           | 55                        |
| 13C12 BDE 126                                                                  | 71           | 58                        |
| 13C12 BDE 154                                                                  | 66           | 55                        |
| 13C12 BDE 153                                                                  | 84           | 65                        |
| 13C12 BDE 183                                                                  | 78           | 76                        |
| 13C12 BDE 197                                                                  | 69           | 67                        |
| 13C12 BDE 207                                                                  | 73           | 71                        |
| 13C12 BDE 209                                                                  | 59           | 69                        |
| 13C14 DBDPE                                                                    | 51           | 62                        |
| <b>Cleanup Standard</b>                                                        |              |                           |
| 13C12 BDE 138 Cleanup                                                          | 76           | 64                        |

# ALS Life Sciences

## Sample Analysis Report

|                    |                                                |                  |           |                                                                                              |
|--------------------|------------------------------------------------|------------------|-----------|----------------------------------------------------------------------------------------------|
| <b>Sample Name</b> | <b>20120951-01L BEAR CREEK GREENWAY BRIDGE</b> | Sampling Date    | 17-Dec-20 | <div>Approved:</div> <div>E. Sabljic</div> <div>--e-signature--</div> <div>26-Jan-2021</div> |
| ALS Sample ID      | L2544018-1                                     | Extraction Date  | 19-Jan-21 |                                                                                              |
| Analysis Method    | EPA 1614                                       | Sample Size      | 0.92 L    |                                                                                              |
| Analysis Type      | Sample                                         | Percent Moisture | n/a       |                                                                                              |
| Sample Matrix      | Water                                          | Split Ratio      | 1         |                                                                                              |

|                        |                         |
|------------------------|-------------------------|
| <b>Run Information</b> | <b>Run 1</b>            |
| Filename               | 10-210125A09            |
| Run Date               | 25-Jan-21 18:06         |
| Final Volume           | 25 uL                   |
| Dilution Factor        | 1                       |
| Analysis Units         | pg/L                    |
| Instrument - Column    | HRMS-10 DBSMSUS0210111H |

| Target Analytes | Ret. Time | Conc. pg/L | EDL pg/L | Flags | EMPC pg/L | LQL |
|-----------------|-----------|------------|----------|-------|-----------|-----|
| BDE 10          | NotFnd    | <1.2       | 1.2      | U     |           | 27  |
| BDE 7           | NotFnd    | <1.2       | 1.2      | U     |           | 27  |
| BDE 8/11        | NotFnd    | <0.83      | 0.83     | U     |           | 54  |
| BDE 12/13       | NotFnd    | <0.71      | 0.71     | U     |           | 54  |
| BDE 15          | 7.13      | 3.70       | 0.61     | J     |           | 27  |
| BDE 30          | 7.97      | <14        | 1.7      | J,R   | 14        | 27  |
| BDE 32          | NotFnd    | <1.2       | 1.2      | U     |           | 27  |
| BDE 17/25       | 8.48      | <15        | 1.5      | M,J,R | 15        | 54  |
| BDE 28/33       | 8.81      | 27.0       | 1.5      | J     |           | 54  |
| BDE 35          | 8.93      | <2.5       | 1.0      | J,R   | 2.5       | 27  |
| BDE 37          | 9.10      | 2.20       | 1.1      | J     |           | 27  |
| PBEB            | NotFnd    | <0.54      | 0.54     | U     |           | 27  |
| PBB 52          | NotFnd    | <0.79      | 0.79     | U     |           | 27  |
| HBB             | 10.12     | 7.61       | 0.77     | J,B   |           | 27  |
| BDE 75          | 10.15     | <3.6       | 0.75     | J,R   | 3.6       | 27  |
| BDE 51          | 10.21     | 4.03       | 0.65     | J     |           | 27  |
| BDE 49          | 10.31     | 50.4       | 0.97     |       |           | 27  |
| BDE 71          | 10.37     | 6.29       | 1.0      | J     |           | 27  |
| BDE 47          | 10.64     | 743        | 0.68     | M     |           | 27  |
| BDE 79          | 10.77     | 9.24       | 0.64     | M,J   |           | 27  |
| BDE 66          | 10.93     | 26.2       | 1.1      | M,J   |           | 27  |
| BDE 77          | NotFnd    | <0.71      | 0.71     | U     |           | 27  |
| PBB 101         | NotFnd    | <1.0       | 1.0      | U     |           | 54  |
| BDE 100         | 12.28     | 182        | 0.90     |       |           | 41  |
| BDE 119/120     | NotFnd    | <1.7       | 1.7      | U     |           | 41  |
| BDE 99          | 12.79     | 810        | 1.2      | M     |           | 41  |
| BDE 116         | NotFnd    | <2.9       | 2.9      | U     |           | 41  |
| BDE 83          | NotFnd    | <2.3       | 2.3      | U     |           | 41  |
| BDE 118         | 13.20     | <3.5       | 2.0      | M,J,R | 3.5       | 41  |
| BDE 85          | 13.70     | 32.3       | 1.7      | M,J   |           | 41  |
| BDE 126         | 13.90     | <1.0       | 1.0      | M,U   | 0.79      | 41  |
| BDE 105         | NotFnd    | <2.1       | 2.1      | U     |           | 41  |
| PBB 153         | 14.20     | 4.42       | 1.7      | M,J   |           | 54  |
| BDE 155         | 13.87     | 4.41       | 1.0      | J     |           | 54  |
| BDE 154         | 14.25     | 79.4       | 1.4      |       |           | 54  |
| BDE 153         | 15.00     | 85.3       | 3.4      |       |           | 54  |
| BDE 140         | 15.45     | <4.9       | 3.4      | M,J,R | 4.9       | 54  |
| BDE 138/166     | 15.95     | 13.2       | 6.2      | M,J   |           | 110 |
| BDE 156         | NotFnd    | <8.2       | 8.2      | U     |           | 54  |
| BDE 128         | NotFnd    | <7.1       | 7.1      | U     |           | 54  |
| BDE 184         | NotFnd    | <1.5       | 1.5      | U     |           | 68  |
| BDE 183         | 17.14     | <19        | 2.3      | J,R   | 19        | 68  |
| BDE 191         | NotFnd    | <3.6       | 3.6      | U     |           | 68  |
| BDE 181         | NotFnd    | <3.6       | 3.6      | U     |           | 68  |
| BDE 190         | NotFnd    | <5.2       | 5.2      | U     |           | 68  |
| PBB 180         | NotFnd    | <3.8       | 3.8      | U     |           | 54  |
| BDE 197         | 19.58     | 20.5       | 2.7      | J     |           | 68  |
| BDE 203         | 19.81     | 32.6       | 3.5      | J     |           | 68  |
| BDE 196         | 19.94     | 25.8       | 3.2      | J     |           | 68  |
| PBB 194         | NotFnd    | <1.4       | 1.4      | U     |           | 54  |
| BDE 208         | 21.22     | 166        | 10       |       |           | 140 |
| BDE 207         | 21.35     | 243        | 10       |       |           | 140 |
| BDE 206         | 21.63     | 416        | 12       |       |           | 140 |
| PBB 206         | NotFnd    | <6.5       | 6.5      | U     |           | 140 |
| PBB 209         | NotFnd    | <5.1       | 5.1      | U     |           | 140 |
| BDE 209         | 23.44     | 10100      | 10       |       |           | 140 |
| DBDPE           | 24.98     | 5620       | 18       |       |           | 270 |

| Extraction Standards | pg    | % Rec | Limits    |
|----------------------|-------|-------|-----------|
| 13C12 BDE 15         | 1000  | 7.13  | 55 25-150 |
| 13C12 BDE 28         | 1000  | 8.81  | 67 25-150 |
| 13C6 HBB             | 1000  | 10.11 | 57 25-150 |
| 13C12 BDE 47         | 1000  | 10.63 | 66 25-150 |
| 13C12 BDE 77         | 1000  | 11.39 | 66 25-150 |
| 13C12 BDE 100        | 1000  | 12.28 | 52 25-150 |
| 13C12 BDE 99         | 1000  | 12.79 | 62 25-150 |
| 13C12 BDE 126        | 1000  | 13.86 | 61 25-150 |
| 13C12 BDE 154        | 1000  | 14.25 | 54 25-150 |
| 13C12 BDE 153        | 1000  | 14.99 | 69 25-150 |
| 13C12 BDE 183        | 1000  | 17.13 | 66 25-150 |
| 13C12 BDE 197        | 2000  | 19.57 | 68 25-150 |
| 13C12 BDE 207        | 5000  | 21.33 | 67 25-150 |
| 13C12 BDE 209        | 5000  | 23.44 | 80 20-200 |
| 13C14 DBDPE          | 10000 | 24.97 | 77 5-200  |

| Cleanup Standard      | pg   | % Rec | Limits    |
|-----------------------|------|-------|-----------|
| 13C12 BDE 138 Cleanup | 2000 | 15.95 | 67 30-135 |

|      |                                                                                                                          |
|------|--------------------------------------------------------------------------------------------------------------------------|
| EDL  | Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.          |
| LQL  | Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.       |
| M    | Indicates that a peak has been manually integrated.                                                                      |
| U    | Indicates that this compound was not detected above the EDL.                                                             |
| J    | Indicates that a target analyte was detected below the calibrated range.                                                 |
| R    | Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.                          |
| B    | Indicates that this target was detected in the blank at greater than 10% of the sample concentration.                    |
| EMPC | Estimated Maximum Possible Concentration - elevated detection limit due to interference or positive id criterion failure |

# ALS Life Sciences

## Laboratory Method Blank Analysis Report

|                    |                     |                  |           |   |                                                                  |
|--------------------|---------------------|------------------|-----------|---|------------------------------------------------------------------|
| <b>Sample Name</b> | <b>Method Blank</b> | Sampling Date    | n/a       | L | Approved:<br><i>E. Sabljic</i><br>--e-signature--<br>26-Jan-2021 |
| ALS Sample ID      | WG3468531-1         | Extraction Date  | 19-Jan-21 |   |                                                                  |
| Analysis Method    | EPA 1614            | Sample Size      | 1.00      |   |                                                                  |
| Analysis Type      | Blank               | Percent Moisture | n/a       |   |                                                                  |
| Sample Matrix      | QC                  | Split Ratio      | 1         |   |                                                                  |

|                        |                        |
|------------------------|------------------------|
| <b>Run Information</b> | <b>Run 1</b>           |
| Filename               | 10-210125A07           |
| Run Date               | 25-Jan-21 16:54        |
| Final Volume           | 25 uL                  |
| Dilution Factor        | 1                      |
| Analysis Units         | pg/L                   |
| Instrument - Column    | HRMS-10 DBSMUS0210111H |

| Target Analytes | Ret. Time | Conc. pg/L | EDL pg/L | Flags | EMPC pg/L | LQL |
|-----------------|-----------|------------|----------|-------|-----------|-----|
| BDE 10          | NotFnd    | <0.98      | 0.98     | U     |           | 25  |
| BDE 7           | NotFnd    | <0.93      | 0.93     | U     |           | 25  |
| BDE 8/11        | NotFnd    | <0.66      | 0.66     | U     |           | 50  |
| BDE 12/13       | NotFnd    | <0.57      | 0.57     | U     |           | 50  |
| BDE 15          | NotFnd    | <0.49      | 0.49     | U     |           | 25  |
| BDE 30          | NotFnd    | <1.5       | 1.5      | U     |           | 25  |
| BDE 32          | NotFnd    | <1.1       | 1.1      | U     |           | 25  |
| BDE 17/25       | NotFnd    | <1.4       | 1.4      | U     |           | 50  |
| BDE 28/33       | 8.89      | <1.5       | 1.3      | M,J,R | 1.5       | 50  |
| BDE 35          | NotFnd    | <0.90      | 0.90     | U     |           | 25  |
| BDE 37          | NotFnd    | <0.93      | 0.93     | U     |           | 25  |
| PBEB            | NotFnd    | <0.44      | 0.44     | U     |           | 25  |
| PBB 52          | NotFnd    | <0.59      | 0.59     | U     |           | 25  |
| HBB             | 10.15     | 6.10       | 0.66     | J     |           | 25  |
| BDE 75          | NotFnd    | <0.90      | 0.90     | U     |           | 25  |
| BDE 51          | NotFnd    | <0.78      | 0.78     | U     |           | 25  |
| BDE 49          | 10.33     | <1.6       | 1.2      | M,J,R | 1.6       | 25  |
| BDE 71          | NotFnd    | <1.2       | 1.2      | U     |           | 25  |
| BDE 47          | 10.66     | 59.3       | 0.78     |       |           | 25  |
| BDE 79          | NotFnd    | <0.76      | 0.76     | U     |           | 25  |
| BDE 66          | NotFnd    | <1.3       | 1.3      | U     |           | 25  |
| BDE 77          | NotFnd    | <0.88      | 0.88     | U     |           | 25  |
| PBB 101         | NotFnd    | <0.74      | 0.74     | U     |           | 50  |
| BDE 100         | 12.30     | 10.0       | 0.87     | J     |           | 38  |
| BDE 119/120     | NotFnd    | <1.8       | 1.8      | U     |           | 38  |
| BDE 99          | 12.81     | 49.1       | 1.2      | M     |           | 38  |
| BDE 116         | NotFnd    | <2.9       | 2.9      | U     |           | 38  |
| BDE 83          | NotFnd    | <2.3       | 2.3      | U     |           | 38  |
| BDE 118         | NotFnd    | <2.0       | 2.0      | U     |           | 38  |
| BDE 85          | 13.71     | <2.9       | 1.7      | M,J,R | 2.9       | 38  |
| BDE 126         | NotFnd    | <1.2       | 1.2      | U     |           | 38  |
| BDE 105         | NotFnd    | <2.1       | 2.1      | U     |           | 38  |
| PBB 153         | NotFnd    | <1.0       | 1.0      | U     |           | 50  |
| BDE 155         | NotFnd    | <0.96      | 0.96     | U     |           | 50  |
| BDE 154         | 14.26     | <3.4       | 1.4      | M,J,R | 3.4       | 50  |
| BDE 153         | NotFnd    | <2.5       | 2.5      | U     |           | 50  |
| BDE 140         | NotFnd    | <2.7       | 2.7      | U     |           | 50  |
| BDE 138/166     | NotFnd    | <5.1       | 5.1      | U     |           | 100 |
| BDE 156         | NotFnd    | <6.6       | 6.6      | U     |           | 50  |
| BDE 128         | NotFnd    | <5.8       | 5.8      | U     |           | 50  |
| BDE 184         | NotFnd    | <1.1       | 1.1      | U     |           | 63  |
| BDE 183         | NotFnd    | <1.7       | 1.7      | U     |           | 63  |
| BDE 191         | NotFnd    | <2.6       | 2.6      | U     |           | 63  |
| BDE 181         | NotFnd    | <2.6       | 2.6      | U     |           | 63  |
| BDE 190         | NotFnd    | <3.8       | 3.8      | U     |           | 63  |
| PBB 180         | NotFnd    | <3.0       | 3.0      | U     |           | 50  |
| BDE 197         | NotFnd    | <1.8       | 1.8      | U     |           | 63  |
| BDE 203         | NotFnd    | <2.4       | 2.4      | U     |           | 63  |
| BDE 196         | NotFnd    | <2.1       | 2.1      | U     |           | 63  |
| PBB 194         | NotFnd    | <2.4       | 2.4      | U     |           | 50  |
| BDE 208         | 21.21     | <3.1       | 2.4      | M,J,R | 3.1       | 130 |
| BDE 207         | 21.33     | <3.0       | 2.4      | M,J,R | 3.0       | 130 |
| BDE 206         | 21.63     | <2.9       | 2.9      | M,U   | 2.2       | 130 |
| PBB 206         | NotFnd    | <9.3       | 9.3      | U     |           | 130 |
| PBB 209         | NotFnd    | <3.7       | 3.7      | U     |           | 130 |
| BDE 209         | 23.44     | <48        | 3.5      | M,J,R | 48        | 130 |
| DBDPE           | 24.97     | <140       | 19       | J,R   | 140       | 250 |

| Extraction Standards | pg    | % Rec | Limits    |
|----------------------|-------|-------|-----------|
| 13C12 BDE 15         | 1000  | 7.11  | 65 25-150 |
| 13C12 BDE 28         | 1000  | 8.88  | 78 25-150 |
| 13C6 HBB             | 1000  | 10.13 | 66 25-150 |
| 13C12 BDE 47         | 1000  | 10.66 | 83 25-150 |
| 13C12 BDE 77         | 1000  | 11.40 | 77 25-150 |
| 13C12 BDE 100        | 1000  | 12.30 | 66 25-150 |
| 13C12 BDE 99         | 1000  | 12.79 | 70 25-150 |
| 13C12 BDE 126        | 1000  | 13.87 | 71 25-150 |
| 13C12 BDE 154        | 1000  | 14.25 | 66 25-150 |
| 13C12 BDE 153        | 1000  | 15.00 | 84 25-150 |
| 13C12 BDE 183        | 1000  | 17.13 | 78 25-150 |
| 13C12 BDE 197        | 2000  | 19.56 | 69 25-150 |
| 13C12 BDE 207        | 5000  | 21.33 | 73 25-150 |
| 13C12 BDE 209        | 5000  | 23.43 | 59 20-200 |
| 13C14 DBDPE          | 10000 | 24.95 | 51 5-200  |

| Cleanup Standard      | pg   | % Rec | Limits    |
|-----------------------|------|-------|-----------|
| 13C12 BDE 138 Cleanup | 2000 | 15.96 | 76 30-135 |

|      |                                                                                                                          |
|------|--------------------------------------------------------------------------------------------------------------------------|
| EDL  | Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.          |
| LQL  | Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.       |
| M    | Indicates that a peak has been manually integrated.                                                                      |
| U    | Indicates that this compound was not detected above the EDL.                                                             |
| J    | Indicates that a target analyte was detected below the calibrated range.                                                 |
| R    | Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.                          |
| EMPC | Estimated Maximum Possible Concentration - elevated detection limit due to interference or positive id criterion failure |

# ALS Life Sciences

## Laboratory Control Sample Analysis Report

|                    |                                  |                  |           |                                                                                              |
|--------------------|----------------------------------|------------------|-----------|----------------------------------------------------------------------------------------------|
| <b>Sample Name</b> | <b>Laboratory Control Sample</b> | Sampling Date    | n/a       | <div>Approved:</div> <div>E. Sabljic</div> <div>--e-signature--</div> <div>26-Jan-2021</div> |
| ALS Sample ID      | WG3468531-2                      | Extraction Date  | 19-Jan-21 |                                                                                              |
| Analysis Method    | EPA 1614                         | Sample Size      | 1         |                                                                                              |
| Analysis Type      | LCS                              | Percent Moisture | n/a       |                                                                                              |
| Sample Matrix      | QC                               | Split Ratio      | 1         |                                                                                              |

|                        |                         |
|------------------------|-------------------------|
| <b>Run Information</b> | <b>Run 1</b>            |
| Filename               | 10-210125A03            |
| Run Date               | 25-Jan-21 15:43         |
| Final Volume           | 25 uL                   |
| Dilution Factor        | 1                       |
| Analysis Units         | %                       |
| Instrument - Column    | HRMS-10 DBSMSUS0210111H |

| Target Analytes             | pg        | Ret. Time    | % Rec         | Limits | Flags |
|-----------------------------|-----------|--------------|---------------|--------|-------|
| BDE 10                      | 400       | 6.32         | 47            | 5-130  |       |
| BDE 7                       | 400       | 6.68         | 61            | 5-130  |       |
| BDE 8/11                    | 800       | 6.84         | 89            | 50-150 |       |
| BDE 12/13                   | 800       | 6.96         | 81            | 5-130  |       |
| BDE 15                      | 400       | 7.10         | 97            | 50-150 |       |
| BDE 30                      | 400       | 7.80         | 61            | 5-130  |       |
| BDE 32                      | 400       | 8.32         | 101           | 50-150 |       |
| BDE 17/25                   | 800       | 8.47         | 92            | 50-150 |       |
| BDE 28/33                   | 800       | 8.75         | 99            | 50-150 |       |
| BDE 35                      | 400       | 8.89         | 109           | 50-150 |       |
| BDE 37                      | 400       | 9.07         | 115           | 50-150 |       |
| PBEB                        | 400       | 9.09         | 111           | 50-150 |       |
| PBB 52                      | 400       | 9.18         | 114           | 50-150 |       |
| HBB                         | 400       | 10.10        | 97            | 50-150 |       |
| BDE 75                      | 400       | 10.12        | 104           | 50-150 |       |
| BDE 51                      | 400       | 10.20        | 109           | 50-150 |       |
| BDE 49                      | 400       | 10.29        | 111           | 50-150 |       |
| BDE 71                      | 400       | 10.37        | 111           | 50-150 |       |
| BDE 47                      | 400       | 10.63        | 102           | 50-150 |       |
| BDE 79                      | 400       | 10.79        | 104           | 50-150 |       |
| BDE 66                      | 400       | 10.92        | 103           | 50-150 |       |
| BDE 77                      | 400       | 11.40        | 97            | 50-150 |       |
| PBB 101                     | 800       | 11.54        | 85            | 50-150 |       |
| BDE 100                     | 600       | 12.28        | 95            | 50-150 |       |
| BDE 119/120                 | 1200      | 12.46        | 107           | 50-150 |       |
| BDE 99                      | 600       | 12.79        | 101           | 50-150 |       |
| BDE 116                     | 600       | 12.97        | 80            | 40-140 |       |
| BDE 83                      | 600       | 13.09        | 85            | 50-150 |       |
| BDE 118                     | 600       | 13.20        | 94            | 50-150 |       |
| BDE 85                      | 600       | 13.70        | 107           | 50-150 |       |
| BDE 126                     | 600       | 13.87        | 96            | 50-150 |       |
| BDE 105                     | 600       | 14.04        | 105           | 50-150 |       |
| PBB 153                     | 800       | 14.21        | 107           | 50-150 |       |
| BDE 155                     | 800       | 13.87        | 84            | 50-150 |       |
| BDE 154                     | 800       | 14.25        | 99            | 50-150 |       |
| BDE 153                     | 800       | 14.99        | 97            | 50-150 |       |
| BDE 140                     | 800       | 15.46        | 107           | 50-150 |       |
| BDE 138/166                 | 1600      | 15.96        | 117           | 50-150 | M     |
| BDE 156                     | 800       | 16.34        | 99            | 50-150 |       |
| BDE 128                     | 800       | 16.96        | 98            | 50-150 |       |
| BDE 184                     | 1000      | 16.77        | 107           | 50-150 |       |
| BDE 183                     | 1000      | 17.14        | 101           | 50-150 |       |
| BDE 191                     | 1000      | 17.70        | 105           | 50-150 |       |
| BDE 181                     | 1000      | 18.25        | 93            | 50-150 |       |
| BDE 190                     | 1000      | 18.41        | 95            | 50-150 |       |
| PBB 180                     | 800       | 17.25        | 96            | 50-150 |       |
| BDE 197                     | 1000      | 19.57        | 96            | 50-150 |       |
| BDE 203                     | 1000      | 19.82        | 104           | 50-150 |       |
| BDE 196                     | 1000      | 19.95        | 98            | 50-150 |       |
| PBB 194                     | 800       | 20.01        | 95            | 50-150 |       |
| BDE 208                     | 2000      | 21.22        | 111           | 50-150 |       |
| BDE 207                     | 2000      | 21.35        | 97            | 50-150 |       |
| BDE 206                     | 2000      | 21.64        | 101           | 50-150 |       |
| PBB 206                     | 2000      | 21.05        | 118           | 40-200 |       |
| PBB 209                     | 2000      | 22.03        | 111           | 40-200 |       |
| BDE 209                     | 2000      | 23.44        | 99            | 40-200 |       |
| DBDPE                       | 4000      | 24.98        | 104           | 40-200 |       |
| <b>Extraction Standards</b> | <b>pg</b> | <b>% Rec</b> | <b>Limits</b> |        |       |
| 13C12 BDE 15                | 1000      | 7.10         | 65            | 25-150 |       |
| 13C12 BDE 28                | 1000      | 8.75         | 79            | 30-140 |       |
| 13C6 HBB                    | 1000      | 10.08        | 61            | 30-140 |       |
| 13C12 BDE 47                | 1000      | 10.62        | 74            | 30-140 |       |
| 13C12 BDE 77                | 1000      | 11.39        | 69            | 30-140 |       |
| 13C12 BDE 100               | 1000      | 12.28        | 53            | 30-140 |       |
| 13C12 BDE 99                | 1000      | 12.79        | 55            | 30-140 |       |
| 13C12 BDE 126               | 1000      | 13.86        | 58            | 30-140 |       |
| 13C12 BDE 154               | 1000      | 14.25        | 55            | 30-140 |       |
| 13C12 BDE 153               | 1000      | 14.99        | 65            | 30-140 |       |
| 13C12 BDE 183               | 1000      | 17.13        | 76            | 30-140 |       |
| 13C12 BDE 197               | 2000      | 19.57        | 67            | 30-140 |       |
| 13C12 BDE 207               | 5000      | 21.35        | 71            | 30-140 |       |
| 13C12 BDE 209               | 5000      | 23.44        | 69            | 20-200 |       |
| 13C14 DBDPE                 | 10000     | 24.96        | 62            | 5-200  |       |
| <b>Cleanup Standard</b>     | <b>pg</b> |              |               |        |       |
| 13C12 BDE 138 Cleanup       | 2000      | 15.95        | 64            | 40-125 |       |

M Indicates that a peak has been manually integrated.

R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.



# Chain of Custody Record

This Chain of Custody is a LEGAL DOCUMENT and must be filled out accurately.

## Section A

### Required Client Information

|                                                                                                                                      |                                            |
|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Company:                                                                                                                             | Grants Pass City of Water Filtration Plant |
| Address:                                                                                                                             | 821 SE M Street<br>Grants Pass, OR 97526   |
| Email:                                                                                                                               | asmith@grantspassoregon.gov                |
| Phone:                                                                                                                               | 541-450-6119 Fax:                          |
| Collected By (Print):                                                                                                                | Adam B Smith                               |
| Collected By (Sign):                                                                                                                 | <i>Adam B Smith</i>                        |
| Email Report <input checked="" type="checkbox"/> Mail Report <input checked="" type="checkbox"/> Fax Report <input type="checkbox"/> |                                            |

## Section B

### Required Project Information

|                 |                            |
|-----------------|----------------------------|
| Project Name:   | Bear Creek Greenway Bridge |
| Project Number: | by US Cellular Park        |
| Report To:      | Adam B Smith               |
| Copy To:        |                            |

## Section C

### Invoice Information

|               |  |
|---------------|--|
| Attention:    |  |
| Company Name: |  |
| Address:      |  |

## Section D

### Rush Status (Subject to Scheduling)

|                                                                  |                                                                                |
|------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Rush: Same Day (List x 3.00) | Authorized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <input type="checkbox"/> Priority: 5 Business Days (List x 1.50) |                                                                                |
| <input type="checkbox"/> Express: 3 Business Days (List x 1.75)  |                                                                                |
| <input type="checkbox"/> Rush: 2 Business Days (List x 2.00)     |                                                                                |

## Section E

### Sample Information

| Sample ID              | Comp/Grab | Matrix* | Date Collected | Time Collected | No. of Containers | Top 35 | HG, TSS, Cyanide | TKN and Tphos | VOC TOC | PAHs | Dioxin and Furans | 503, m Coll Bedstone | Asbestos | PFOS and PFAS | PDES |
|------------------------|-----------|---------|----------------|----------------|-------------------|--------|------------------|---------------|---------|------|-------------------|----------------------|----------|---------------|------|
| Bear Creek Top 35      | Grab      | W       | 12/17/20       | 07:50          | 1                 | X      |                  |               |         |      |                   |                      |          |               |      |
| Bear Creek Cyanide     | Grab      | W       | 12/17/20       | 07:10          | 1                 |        | X                |               |         |      |                   |                      |          |               |      |
| Bear Creek HG          | Grab      | W       | 12/17/20       | 07:50          | 1                 |        | X                |               |         |      |                   |                      |          |               |      |
| Bear Creek TSS         | Grab      | W       | 12/17/20       | 08:10          | 1                 |        | X                |               |         |      |                   |                      |          |               |      |
| Bear Creek TKN Tphos   | Grab      | W       | 12/17/20       | 08:10          | 1                 |        |                  | X             |         |      |                   |                      |          |               |      |
| Bear Creek VOC         | Grab      | W       | 12/17/20       | 07:40          | 5                 |        |                  |               | X       |      |                   |                      |          |               |      |
| Bear Creek TOC         | Grab      | W       | 12/17/20       | 07:40          | 3                 |        |                  |               | X       |      |                   |                      |          |               |      |
| Bear Creek PAHs        | Grab      | W       | 12/17/20       | 07:45          | 3                 |        |                  |               |         | X    |                   |                      |          |               |      |
| Bear Creek Diox Furans | Grab      | W       | 12/17/20       | 08:05          | 2                 |        |                  |               |         |      | X                 |                      |          |               |      |
| Bear Creek 508         | Grab      | W       | 12/17/20       | 08:00          | 3                 |        |                  |               |         |      |                   | X                    |          |               |      |

\*Matrix: DW - Drinking Water WW - Wastewater W - Water S - Soil/Solid SL - Sludge O - Oil WP - Wipe OT - Other

## Section F

### Relinquish/Receive

|                         |                     |      |          |       |
|-------------------------|---------------------|------|----------|-------|
| Relinquished By:        | <i>Adam B Smith</i> | Sign | Date     | Time  |
| Received By:            |                     |      |          |       |
| Relinquished By:        |                     |      |          |       |
| Received By:            |                     |      |          |       |
| Relinquished By:        |                     |      |          |       |
| Received By Laboratory: | <i>Jan Stringer</i> |      | 12/17/20 | 10:57 |

## Section G

### Lab Use Only

|                             |                                                                        |                                                                     |
|-----------------------------|------------------------------------------------------------------------|---------------------------------------------------------------------|
| Temp:                       | 4°C +/- 2°C                                                            | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Received on Ice:            | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>    |                                                                     |
| Number of Bottles Received: |                                                                        |                                                                     |
| pH Checked:                 | NA                                                                     |                                                                     |
| COC Seals Intact:           | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA |                                                                     |
| Field Blank Included:       | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>    |                                                                     |

|          |                                                                                                              |                                                                                                                                                  |
|----------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Payment: | <input checked="" type="checkbox"/> Invoice <input type="checkbox"/> Cash <input type="checkbox"/> VISA, MIC | Received Via <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other <input checked="" type="checkbox"/> Hand |
|          | Check #                                                                                                      | Amount                                                                                                                                           |



## Chain of Custody Record

This Chain of Custody is a LEGAL DOCUMENT and must be filled out accurately.



| Section A<br>Required Client Information |                                            | Section B<br>Required Project Information |                            | Section C<br>Invoice Information |  | Section D<br>Rush Status (Subject to Scheduling) |                                         |
|------------------------------------------|--------------------------------------------|-------------------------------------------|----------------------------|----------------------------------|--|--------------------------------------------------|-----------------------------------------|
| Company:                                 | Grants Pass City of Water Filtration Plant | Project Name:                             | Bear Creek Greenway Bridge | Attention:                       |  | X                                                |                                         |
| Address:                                 | 821 SE M Street                            | Project Number:                           | by US Cellular Park        | Company Name:                    |  |                                                  | Priority: 5 Business Days (List x 1.50) |
|                                          |                                            | Report To:                                | Adam B Smith               | Address:                         |  |                                                  | Express: 3 Business Days (List x 1.75)  |
| Email:                                   | asmith@grantspassoregon.gov                | Copy To:                                  |                            |                                  |  |                                                  | Rush: 2 Business Days (List x 2.00)     |
| Phone:                                   | 541-450-6119                               |                                           |                            |                                  |  |                                                  | Rush: Same Day (List x 3.00)            |
| Fax:                                     |                                            |                                           |                            |                                  |  |                                                  |                                         |
| Collected By (Print):                    |                                            | Adam B Smith                              |                            |                                  |  |                                                  |                                         |
|                                          |                                            | Authorized Yes No                         |                            |                                  |  |                                                  |                                         |

[illegible]

| Section F                           |                 |           |                | Section G                                                                                                                                                                                           |         |            |            |
|-------------------------------------|-----------------|-----------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------------|------------|
| Matrix: DW - Drinking Water         | WW - Wastewater | W - Water | S - Soil/Solid | SL - Sludge                                                                                                                                                                                         | O - Oil | WP - Waste | OT - Other |
| Relinquish/Receive                  |                 |           |                | Lab Use Only                                                                                                                                                                                        |         |            |            |
| Relinquished By: <i>[Signature]</i> |                 |           |                | Temp: <i>9.0</i> <i>DP-F</i>                                                                                                                                                                        |         |            |            |
| Received By:                        |                 |           |                | 4°C +/- 2°C: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                    |         |            |            |
| Relinquished By:                    |                 |           |                | Received on Ice: <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                           |         |            |            |
| Received By:                        |                 |           |                | Number of Bottles Received:                                                                                                                                                                         |         |            |            |
| Relinquished By:                    |                 |           |                | pH Checked: <i>N/A</i>                                                                                                                                                                              |         |            |            |
| Received By:                        |                 |           |                | COC Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>NA</i>                                                                                                     |         |            |            |
| Received By Laboratory:             |                 |           |                | Field Blank Included: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                                                                                           |         |            |            |
|                                     |                 |           |                | Received Via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other <input checked="" type="checkbox"/> Hand                                                   |         |            |            |
|                                     |                 |           |                | Payment: <input type="checkbox"/> Invoice <input type="checkbox"/> Cash <input type="checkbox"/> VISA <input type="checkbox"/> M/C <input type="checkbox"/> Check # <input type="checkbox"/> Amount |         |            |            |



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## Data Flags

WO#: 20120951  
Date: 1/27/2021

- B Analyte detected in the associated method blank.
- BA BOD Alternative Calculation: The initial results performed by Standard Methods did not fall within parameters of the Standard Methods calculation. An alternate approved calculation was performed using the HACH method and the value reported is an estimated concentration.
- C Sample(s) does not meet NELAP/ORELAP sample acceptance criteria. See Case Narrative.
- C1 Sample(s) does not meet NELAP/ORELAP sample acceptance criteria for temperature.
- CF Results confirmed by re-analysis.
- CU Cleanup performed as specified by method.
- D1 The diesel elution pattern for the sample is not typical.
- D2 The sample appears to be a heavier hydrocarbon range than diesel.
- D3 The sample appears to be a lighter hydrocarbon range than diesel.
- D4 Detected hydrocarbons do not have pattern and range consistent with typical petroleum products and may be due to biogenic interference.
- D5 Detected hydrocarbons in the diesel range appear to be weathered diesel.
- E Estimated value.
- ER Elevated reporting limit due to matrix. Report limits (MDLs, MRLs & PQLs) are adjusted based on variations in sample preparation amounts, analytical dilutions, and percent solids, where applicable.
- FC Fecal Coliforms: Sample(s) received past 40 CFR Part 136 specified holding time. Results reported as estimated values.
- G1 The gasoline elution pattern for the sample is not typical.
- G2 The sample appears to be a heavier hydrocarbon range than gasoline.
- G3 The sample appears to be a lighter hydrocarbon range than gasoline.
- G4 Detected hydrocarbons in the gasoline range appear to be weathered gasoline.
- HP Sample re-analysis performed outside of method specified holding time.
- HR Sample received outside of method specified holding time.
- HS Sample analyzed for volatile organics contained headspace.
- HT ☐ At the client's request, the sample was analyzed outside of method specified holding time.
- H Analysis performed outside of method specified holding time.
- J Analyte detected below the Minimum Reporting Limit (MRL) and above the Method Detection Limit (MDL). The J flag result is an estimated value and the user should be aware that this data is of limited reliability.
- L Dissolved metals were not filtered within 15 minutes of collection per 40 CFR Part 136.
- MI Surrogate, Duplicate Sample (DUP) or Matrix Spikes recoveries are out of control limits due to matrix interference. Sample results may be biased.
- N See Case Narrative on page 2 of report.
- NLR No Legionella Recovered.
- PLR Presence of Legionella Recovered.
- Q Initial calibration verification (ICV), continuing calibration verification (CCV) or laboratory control sample (LCS) exceeded high recovery limits, but associated samples are non-detect and the sample results are not affected. Data meets EPA/NELAP requirements.
- R Relative percent difference (RPD) is outside of the accepted recovery limits.
- R1 Relative percent difference (RPD) is outside of the accepted recovery limits. However, analyses are not controlled on RPD values for sample concentrations that are less than the reporting limit.
- R3 The relative percent difference (RPD) and/or percent recovery for the duplicate (DUP) or matrix spike (MS)/matrix spike duplicate (MSD) cannot be accurately calculated due to the concentration of analyte already present in the sample.
- R4 Duplicate analysis failed due to result being at or near the method reporting limit.
- S Surrogate and/or matrix spike recovery is outside of the accepted recovery limits. Sample results may be biased.
- S1 Surrogate or matrix spike recovery is outside of control limits due to dilution necessary for analysis.
- SC Sub-contracted to another laboratory for analysis.
- SP Sample(s) were not collected per EPA Method 5035A protocols. The results are considered minimum values.
- # Value exceeds regulatory level for TCLP contaminant.
- X1 The motor oil elution pattern for the sample is not typical.
- X2 The sample appears to be a heavier hydrocarbon range than motor oil.
- X3 The sample appears to be a lighter hydrocarbon range than motor oil.
- \* Value exceeds Maximum Contaminant Level or is outside the acceptable range.

Original



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November 30, 2020

Jennie Morgan  
Rogue Valley Sewer Services  
138 West Vilas Rd  
Central Point, OR 97502  
TEL: (541) 226-4156  
FAX:

RE: Alameda

Order No.: 20110729

Dear Jennie Morgan:

Neilson Research Corporation received 2 sample(s) on 11/16/2020 for the analyses presented in the following report.

The results relate only to the parameters tested or to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of Neilson Research Corporation. If you have any questions regarding these test results, please feel free to call.

Sincerely,  
Neilson Research Corporation

Tamra Schmedemann  
Senior Project Manager  
245 S Grape St  
Medford, OR 97501



Original



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## Case Narrative

WO#: 20110729

Date: 11/30/2020

---

**CLIENT:** Rogue Valley Sewer Services

**Project:** Alameda

---

The analyses were performed according to the guidelines in the Neilson Research Corporation Quality Assurance Program. This report contains analytical results for the sample(s) as received by the laboratory.

Neilson Research Corporation certifies that this report is in compliance with the requirements of NELAP. No unusual difficulties were experienced during analysis of this batch except as noted below or qualified with data flags on the reports.

### GENERAL CHEMISTRY

#### Holding Time

The pH was not received within the method specified holding time.

#### Digestion Exceptions:

None

#### Analysis:

- A. Method Blank(s): MB  
MB criteria were met.
- B. Matrix Spike Sample(s): MS  
MS criteria were met
- C. Duplicate Sample(s) Dup and/or MSD  
Dup and/or MSD criteria were met
- D. Lab Control Sample(s) LCS  
LCS criteria were met

---

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## Analytical Report

WO#: 20110729  
Date Reported: 11/30/2020

Rogue Valley Sewer Services  
138 West Vilas Rd  
Central Point, OR 97502

Lab ID: 20110729-01  
Collection Date: 11/15/2020 2:00:00 PM  
Received Date: 11/16/2020 12:58:00 PM

Sample Information:

Client Sample ID: Northridge Terrace  
Sample Collector: Jennie Morgan  
Matrix: DRINKING WATER  
Source:  
Sample Location: Grab

## Top 35 Analysis<sup>TM</sup>

| Analyses                                | Method | NELAP Status | Result   | Qual | DF | RL       | Units | EPA Limit | Date Analyzed  | Analyst |
|-----------------------------------------|--------|--------------|----------|------|----|----------|-------|-----------|----------------|---------|
| Aluminum                                | E200.7 | A            | 0.693    | *    | 1  | 0.0200   | mg/L  | 0.200     | 11/19/20 16:00 | KMC     |
| Antimony                                | E200.8 | A            | 0.000665 |      | 1  | 0.000500 | mg/L  | 0.00600   | 11/18/20 21:35 | SJS     |
| Arsenic                                 | E200.8 | A            | 0.00188  |      | 1  | 0.00100  | mg/L  | 0.0100    | 11/18/20 21:35 | SJS     |
| Barium                                  | E200.8 | A            | 0.0129   |      | 1  | 0.000500 | mg/L  | 2.00      | 11/18/20 21:35 | SJS     |
| Beryllium                               | E200.7 | A            | ND       |      | 1  | 0.000500 | mg/L  | 0.00400   | 11/19/20 16:00 | KMC     |
| Boron                                   | E200.7 | A            | ND       |      | 1  | 0.0500   | mg/L  |           | 11/19/20 16:00 | KMC     |
| Cadmium                                 | E200.8 | A            | ND       |      | 1  | 0.000100 | mg/L  | 0.00500   | 11/18/20 21:35 | SJS     |
| Calcium                                 | E200.7 | A            | 4.24     |      | 1  | 1.00     | mg/L  |           | 11/19/20 16:00 | KMC     |
| Chloride                                | E300.0 | A            | ND       |      | 1  | 1.00     | mg/L  | 250       | 11/17/20 3:25  | KEC     |
| Chromium                                | E200.8 | A            | 0.00206  |      | 1  | 0.00100  | mg/L  | 0.100     | 11/18/20 21:35 | SJS     |
| Copper                                  | E200.8 | A            | 0.00648  |      | 1  | 0.000500 | mg/L  | 1.30      | 11/18/20 21:35 | SJS     |
| Fluoride                                | E300.0 | A            | ND       |      | 1  | 0.200    | mg/L  | 4.00      | 11/17/20 3:25  | KEC     |
| Hardness, Total (As CaCO <sub>3</sub> ) | A2340B | A            | 10.6     |      | 1  | 6.62     | mg/L  | 250       | 11/19/20 16:00 | KMC     |
| Iron                                    | E200.7 | A            | 0.709    | *    | 1  | 0.0150   | mg/L  | 0.300     | 11/19/20 16:00 | KMC     |
| Lead                                    | E200.8 | A            | 0.00150  |      | 1  | 0.000100 | mg/L  | 0.0150    | 11/18/20 21:35 | SJS     |
| Lithium                                 | E200.7 | A            | ND       |      | 1  | 0.100    | mg/L  |           | 11/19/20 16:00 | KMC     |
| Magnesium                               | E200.7 | A            | ND       |      | 1  | 1.00     | mg/L  |           | 11/19/20 16:00 | KMC     |
| Manganese                               | E200.7 | A            | 0.0317   |      | 1  | 0.0200   | mg/L  | 0.0500    | 11/19/20 16:00 | KMC     |
| Molybdenum                              | E200.8 | A            | ND       |      | 1  | 0.00100  | mg/L  |           | 11/18/20 21:35 | SJS     |
| Nickel                                  | E200.8 | A            | 0.00143  |      | 1  | 0.000500 | mg/L  | 0.100     | 11/18/20 21:35 | SJS     |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

C1 Sample container temperature is out of limit as specified at testcod  
H Holding times for preparation or analysis exceeded  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

### NELAP

NELAP A Accredited. ORELAP 100016, OR-028

Original

Results are out of the EPA limits



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## Analytical Report

WO#: 20110729  
Date Reported: 11/30/2020

Rogue Valley Sewer Services  
138 West Vilas Rd  
Central Point, OR 97502

Lab ID: 20110729-01  
Collection Date: 11/15/2020 2:00:00 PM  
Received Date: 11/16/2020 12:58:00 PM

Sample Information:

Client Sample ID: Northridge Terrace  
Sample Collector: Jennie Morgan  
Matrix: DRINKING WATER  
Source:  
Sample Location: Grab

## Top 35 Analysis<sup>TM</sup>

| Analyses             | Method    | NELAP Status | Result | Qual | DF | RL       | Units    | EPA Limit | Date Analyzed  | Analyst |
|----------------------|-----------|--------------|--------|------|----|----------|----------|-----------|----------------|---------|
| Nitrogen, Nitrate    | E300.0    | A            | ND     |      | 1  | 0.200    | mg/L     | 10.0      | 11/17/20 3:25  | KEC     |
| Nitrogen, Nitrite    | E300.0    | A            | ND     |      | 1  | 0.0500   | mg/L     | 1.00      | 11/17/20 3:25  | KEC     |
| pH                   | A4500-H+B | A            | 6.74   | HR   | 1  | 0.10     | pH Units | 6.50-8.50 | 11/16/20 16:22 | DLM     |
| Potassium            | E200.7    | A            | 1.33   |      | 1  | 1.00     | mg/L     |           | 11/19/20 16:00 | KMC     |
| Selenium             | E200.8    | A            | ND     |      | 1  | 0.00100  | mg/L     | 0.0500    | 11/18/20 21:35 | SJS     |
| Silica               | E200.7    | A            | 4.63   |      | 1  | 2.14     | mg/L     |           | 11/19/20 16:00 | KMC     |
| Silver               | E200.8    | A            | ND     |      | 1  | 0.000500 | mg/L     | 0.100     | 11/18/20 21:35 | SJS     |
| Sodium               | E200.7    | A            | 3.49   |      | 1  | 1.00     | mg/L     | 200       | 11/19/20 16:00 | KMC     |
| Specific Conductance | A2510B    | A            | 24.2   |      | 1  | 1.00     | µmhos/cm |           | 11/16/20 16:22 | DLM     |
| Sulfate              | E300.0    | A            | 0.693  |      | 1  | 0.500    | mg/L     | 250       | 11/17/20 3:25  | KEC     |
| Thallium             | E200.8    | A            | ND     |      | 1  | 0.000500 | mg/L     | 0.00200   | 11/18/20 21:35 | SJS     |
| Turbidity            | A2130     | A            | 5.39   | *    | 1  | 0.100    | NTU      | 1.00-5.00 | 11/16/20 17:43 | DLM     |
| Uranium              | E200.8    | A            | ND     |      | 1  | 0.000100 | mg/L     | 0.0300    | 11/18/20 21:35 | SJS     |
| Vanadium             | E200.8    | A            | ND     |      | 1  | 0.00500  | mg/L     |           | 11/18/20 21:35 | SJS     |
| Zinc                 | E200.7    | A            | ND     |      | 1  | 0.0500   | mg/L     | 5.00      | 11/19/20 16:00 | KMC     |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

C1 Sample container temperature is out of limit as specified at testcod  
H Holding times for preparation or analysis exceeded  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

### NELAP

NELAP A Accredited. ORELAP 100016, OR-028

Original

Results are out of the EPA limits



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## Analytical Report

WO#: 20110729  
Date Reported: 11/30/2020

**CLIENT:** Rogue Valley Sewer Services  
**Lab ID:** 20110729-01B  
**Client Sample ID:** Northridge Terrace  
**Project:** Alameda  
**Sample Location:** Grab  
**Sample Address:**

**Collection Date:** 11/15/2020 2:00:00 PM  
**Received Date:** 11/16/2020 12:58:00 PM  
**Matrix:** DRINKING WATER  
**PWS #:**  
**Source ID:**  
**Sample Collector:** JENNIE MORGAN

| Analyses              | Code | Method | NELAP<br>Status | Result | Qual<br>DF | RL Units   | Date<br>MCL Analyzed | Analyst |
|-----------------------|------|--------|-----------------|--------|------------|------------|----------------------|---------|
| Organic Carbon, Total | 2920 | A5310C | A               | 5.12   | 1          | 0.100 mg/L | 11/20/20 11:22       | SJS     |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

Original

### NELAP

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## Analytical Report

WO#: 20110729  
Date Reported: 11/30/2020

Rogue Valley Sewer Services  
138 West Vilas Rd  
Central Point, OR 97502

Lab ID: 20110729-02  
Collection Date: 11/15/2020 3:00:00 PM  
Received Date: 11/16/2020 12:58:00 PM

Sample Information:

Client Sample ID: W Valley View  
Sample Collector: Jennie Morgan  
Matrix: DRINKING WATER  
Source:  
Sample Location: Grab

## Top 35 Analysis<sup>TM</sup>

| Analyses                                | Method | NELAP Status | Result   | Qual | DF | RL       | Units | EPA Limit | Date Analyzed  | Analyst |
|-----------------------------------------|--------|--------------|----------|------|----|----------|-------|-----------|----------------|---------|
| Aluminum                                | E200.7 | A            | 1.15     | *    | 1  | 0.0200   | mg/L  | 0.200     | 11/19/20 16:03 | KMC     |
| Antimony                                | E200.8 | A            | 0.00113  |      | 1  | 0.000500 | mg/L  | 0.00600   | 11/18/20 21:39 | SJS     |
| Arsenic                                 | E200.8 | A            | 0.00207  |      | 1  | 0.00100  | mg/L  | 0.0100    | 11/18/20 21:39 | SJS     |
| Barium                                  | E200.8 | A            | 0.0289   |      | 1  | 0.000500 | mg/L  | 2.00      | 11/18/20 21:39 | SJS     |
| Beryllium                               | E200.7 | A            | 0.000600 |      | 1  | 0.000500 | mg/L  | 0.00400   | 11/19/20 16:03 | KMC     |
| Boron                                   | E200.7 | A            | 0.196    |      | 1  | 0.0500   | mg/L  |           | 11/19/20 16:03 | KMC     |
| Cadmium                                 | E200.8 | A            | ND       |      | 1  | 0.000100 | mg/L  | 0.00500   | 11/18/20 21:39 | SJS     |
| Calcium                                 | E200.7 | A            | 16.8     |      | 1  | 1.00     | mg/L  |           | 11/19/20 16:03 | KMC     |
| Chloride                                | E300.0 | A            | 16.6     |      | 1  | 1.00     | mg/L  | 250       | 11/17/20 10:22 | KEC     |
| Chromium                                | E200.8 | A            | 0.00278  |      | 1  | 0.00100  | mg/L  | 0.100     | 11/18/20 21:39 | SJS     |
| Copper                                  | E200.8 | A            | 0.00795  |      | 1  | 0.000500 | mg/L  | 1.30      | 11/18/20 21:39 | SJS     |
| Fluoride                                | E300.0 | A            | ND       |      | 1  | 0.200    | mg/L  | 4.00      | 11/17/20 10:22 | KEC     |
| Hardness, Total (As CaCO <sub>3</sub> ) | A2340B | A            | 58.3     |      | 1  | 6.62     | mg/L  | 250       | 11/19/20 16:03 | KMC     |
| Iron                                    | E200.7 | A            | 1.20     | *    | 1  | 0.0150   | mg/L  | 0.300     | 11/19/20 16:03 | KMC     |
| Lead                                    | E200.8 | A            | 0.00339  |      | 1  | 0.000100 | mg/L  | 0.0150    | 11/18/20 21:39 | SJS     |
| Lithium                                 | E200.7 | A            | ND       |      | 1  | 0.100    | mg/L  |           | 11/19/20 16:03 | KMC     |
| Magnesium                               | E200.7 | A            | 3.97     |      | 1  | 1.00     | mg/L  |           | 11/19/20 16:03 | KMC     |
| Manganese                               | E200.7 | A            | 0.0588   | *    | 1  | 0.0200   | mg/L  | 0.0500    | 11/19/20 16:03 | KMC     |
| Molybdenum                              | E200.8 | A            | 0.00135  |      | 1  | 0.00100  | mg/L  |           | 11/18/20 21:39 | SJS     |
| Nickel                                  | E200.8 | A            | 0.00196  |      | 1  | 0.000500 | mg/L  | 0.100     | 11/18/20 21:39 | SJS     |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

C1 Sample container temperature is out of limit as specified at testcod  
H Holding times for preparation or analysis exceeded  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

### NELAP

NELAP A Accredited. ORELAP 100016, OR-028

Original

Results are out of the EPA limits





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## Analytical Report

WO#: 20110729  
Date Reported: 11/30/2020

Rogue Valley Sewer Services  
138 West Vilas Rd  
Central Point, OR 97502

Lab ID: 20110729-02  
Collection Date: 11/15/2020 3:00:00 PM  
Received Date: 11/16/2020 12:58:00 PM

Sample Information:

Client Sample ID: W Valley View  
Sample Collector: Jennie Morgan  
Matrix: DRINKING WATER  
Source:  
Sample Location: Grab

## Top 35 Analysis<sup>TM</sup>

| Analyses             | Method    | NELAP Status | Result   | Qual | DF | RL       | Units    | EPA Limit | Date Analyzed  | Analyst |
|----------------------|-----------|--------------|----------|------|----|----------|----------|-----------|----------------|---------|
| Nitrogen, Nitrate    | E300.0    | A            | 0.367    |      | 1  | 0.200    | mg/L     | 10.0      | 11/17/20 10:22 | KEC     |
| Nitrogen, Nitrite    | E300.0    | A            | ND       |      | 1  | 0.0500   | mg/L     | 1.00      | 11/17/20 10:22 | KEC     |
| pH                   | A4500-H+B | A            | 6.89     | HR   | 1  | 0.10     | pH Units | 6.50-8.50 | 11/17/20 17:26 | DLM     |
| Potassium            | E200.7    | A            | 2.05     |      | 1  | 1.00     | mg/L     |           | 11/19/20 16:03 | KMC     |
| Selenium             | E200.8    | A            | ND       |      | 1  | 0.00100  | mg/L     | 0.0500    | 11/18/20 21:39 | SJS     |
| Silica               | E200.7    | A            | 10.9     |      | 1  | 2.14     | mg/L     |           | 11/19/20 16:03 | KMC     |
| Silver               | E200.8    | A            | ND       |      | 1  | 0.000500 | mg/L     | 0.100     | 11/18/20 21:39 | SJS     |
| Sodium               | E200.7    | A            | 13.6     |      | 1  | 1.00     | mg/L     | 200       | 11/19/20 16:03 | KMC     |
| Specific Conductance | A2510B    | A            | 147      |      | 1  | 1.00     | µmhos/cm |           | 11/17/20 17:26 | DLM     |
| Sulfate              | E300.0    | A            | 21.6     |      | 1  | 0.500    | mg/L     | 250       | 11/17/20 10:22 | KEC     |
| Thallium             | E200.8    | A            | ND       |      | 1  | 0.000500 | mg/L     | 0.00200   | 11/18/20 21:39 | SJS     |
| Turbidity            | A2130     | A            | 9.40     | *HR  | 1  | 0.100    | NTU      | 1.00-5.00 | 11/17/20 18:15 | DLM     |
| Uranium              | E200.8    | A            | 0.000113 |      | 1  | 0.000100 | mg/L     | 0.0300    | 11/18/20 21:39 | SJS     |
| Vanadium             | E200.8    | A            | 0.00715  |      | 1  | 0.00500  | mg/L     |           | 11/18/20 21:39 | SJS     |
| Zinc                 | E200.7    | A            | ND       |      | 1  | 0.0500   | mg/L     | 5.00      | 11/19/20 16:03 | KMC     |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

C1 Sample container temperature is out of limit as specified at testcod  
H Holding times for preparation or analysis exceeded  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

### NELAP

NELAP A Accredited. ORELAP 100016, OR-028

Original

Results are out of the EPA limits



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## Analytical Report

WO#: 20110729  
Date Reported: 11/30/2020

**CLIENT:** Rogue Valley Sewer Services  
**Lab ID:** 20110729-02B  
**Client Sample ID:** W Valley View  
**Project:** Alameda  
**Sample Location:** Grab  
**Sample Address:**

**Collection Date:** 11/15/2020 3:00:00 PM  
**Received Date:** 11/16/2020 12:58:00 PM  
**Matrix:** DRINKING WATER  
**PWS #:**  
**Source ID:**  
**Sample Collector:** JENNIE MORGAN

| Analyses              | Code | Method | NELAP<br>Status | Result | Qual<br>DF | RL Units   | Date<br>MCL Analyzed | Analyst |
|-----------------------|------|--------|-----------------|--------|------------|------------|----------------------|---------|
| Organic Carbon, Total | 2920 | A5310C | A               | 10.6   | 1          | 0.100 mg/L | 11/20/20 11:49       | SJS     |

### QUALIFIERS

\* Value exceeds Maximum Contaminant Level.  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

C1 Sample container temperature is out of limit as specified at testcode  
MI Recovery outside control limits due to Matrix Interference  
PL Permit Limit

Original

### NELAP

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# QC SUMMARY REPORT

WO#: 20110729  
30-Nov-20

**Client:** Rogue Valley Sewer Services  
**Project:** Alameda

**TestCode:** TOC\_5310C

|                       |                  |                     |             |                           |                                                        |
|-----------------------|------------------|---------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: LCS @ 1    | SampleType: LCS  | TestCode: TOC_5310C | Units: mg/L | Prep Date:                | RunNo: 17227                                           |
| Client ID: LCSW       | Batch ID: R17227 | TestNo: A5310C      |             | Analysis Date: 11/20/2020 | SeqNo: 248472                                          |
| Analyte               | Result           | PQL                 | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Organic Carbon, Total | 0.969            | 0.100               | 1.000       | 0                         | 96.9 85 115                                            |

|                       |                  |                     |             |                           |                                                        |
|-----------------------|------------------|---------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: MBLK       | SampleType: MBLK | TestCode: TOC_5310C | Units: mg/L | Prep Date:                | RunNo: 17227                                           |
| Client ID: PBW        | Batch ID: R17227 | TestNo: A5310C      |             | Analysis Date: 11/20/2020 | SeqNo: 248473                                          |
| Analyte               | Result           | PQL                 | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Organic Carbon, Total | ND               | 0.100               |             |                           |                                                        |

|                         |                  |                     |             |                           |                                                        |
|-------------------------|------------------|---------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: MBLK PLASTIC | SampleType: MBLK | TestCode: TOC_5310C | Units: mg/L | Prep Date:                | RunNo: 17227                                           |
| Client ID: PBW          | Batch ID: R17227 | TestNo: A5310C      |             | Analysis Date: 11/20/2020 | SeqNo: 248474                                          |
| Analyte                 | Result           | PQL                 | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Organic Carbon, Total   | ND               | 0.100               |             |                           |                                                        |

|                            |                  |                     |             |                           |                                                        |
|----------------------------|------------------|---------------------|-------------|---------------------------|--------------------------------------------------------|
| Sample ID: 20110990-01ADUP | SampleType: DUP  | TestCode: TOC_5310C | Units: mg/L | Prep Date:                | RunNo: 17227                                           |
| Client ID: BatchQC         | Batch ID: R17227 | TestNo: A5310C      |             | Analysis Date: 11/20/2020 | SeqNo: 248496                                          |
| Analyte                    | Result           | PQL                 | SPK value   | SPK Ref Val               | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Organic Carbon, Total      | 1.64             | 0.100               |             | 1.674                     | 2.18 25                                                |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. Recovery outside control limits due to Matrix Interference. Reporting Detection Limit. C1 Sample container temperature is out of limit as specified at testcode. ND Not Detected at the Reporting Limit. H Holding times for preparation or analysis exceed PL Permit Limit.

Original



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## QC SUMMARY REPORT

WO#: 20110729  
30-Nov-20

**Client:** Rogue Valley Sewer Services  
**Project:** Alameda

**TestCode:** TOC\_5310C

|                           |                  |                     |             |                           |               |          |           |             |      |          |      |
|---------------------------|------------------|---------------------|-------------|---------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 20110990-02AMS | SampType: MS     | TestCode: TOC_5310C | Units: mg/L | Prep Date:                | RunNo: 17227  |          |           |             |      |          |      |
| Client ID: BatchQC        | Batch ID: R17227 | TestNo: A5310C      |             | Analysis Date: 11/20/2020 | SeqNo: 248498 |          |           |             |      |          |      |
| Analyte                   | Result           | PQL                 | SPK value   | SPK Ref Val               | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Organic Carbon, Total     | 3.09             | 0.100               | 2.500       | 0.6335                    | 98.3          | 80       | 120       |             |      |          |      |

**Qualifiers:**

|    |                                                            |    |                                                                       |    |                                                  |
|----|------------------------------------------------------------|----|-----------------------------------------------------------------------|----|--------------------------------------------------|
| *  | Value exceeds Maximum Contaminant Level.                   | C1 | Sample container temperature is out of limit as specified at testcode | H  | Holding times for preparation or analysis exceed |
| MI | Recovery outside control limits due to Matrix Interference | ND | Not Detected at the Reporting Limit                                   | PL | Permit Limit                                     |
| RL | Reporting Detection Limit                                  |    |                                                                       |    |                                                  |

Original



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## Sample Log-In Check List

Client Name: **RVSS**

Work Order Number: **20110729**

RcptNo: **1**

Logged by: **Naomi Orr** **11/16/2020 12:58:00 PM**

Completed By: **Krizzle Calip** **11/17/2020 3:08:41 PM**

Reviewed By: **Tamra Schmedemann** **11/30/2020 2:06:12 PM**

*Naomi Orr*  
*Krizzle Calip*  
*Tamra Schmedemann*

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐  
4. Shipping container/cooler in good condition? Yes ☒ No ☐  
Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒  
No. Seal Date: Signed By:  
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
6. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐  
7. Sample(s) in proper container(s)? Yes ☐ No ☒  
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐  
10. Was preservative added to bottles? Yes ☒ No ☐ NA ☐  
HNO<sub>3</sub> pH<2  
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☒  
12. Were any sample containers received broken? Yes ☐ No ☒  
13. Does paperwork match bottle labels? Yes ☒ No ☐  
(Note discrepancies on chain of custody)  
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
15. Is it clear what analyses were requested? Yes ☒ No ☐  
16. Were all holding times able to be met? Yes ☐ No ☒  
(If no, notify customer for authorization.)

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

|                      |                      |       |                                                                                                                               |
|----------------------|----------------------|-------|-------------------------------------------------------------------------------------------------------------------------------|
| Person Notified:     | <input type="text"/> | Date: | <input type="text"/>                                                                                                          |
| By Whom:             | <input type="text"/> | Via:  | <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person |
| Regarding:           | <input type="text"/> |       |                                                                                                                               |
| Client Instructions: | <input type="text"/> |       |                                                                                                                               |

18. Additional remarks:

The samples submitted were tan in color and contained visible sediments. Client asked that we pour off samples for the TOCs as they were not in the correct containers.

### Cooler Information

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1         | 5.0     | Good      |             |         |           | sns       |

This Chair of Custody is a LEGAL DOCUMENT and must be filled out accurately.

| Section A<br>Required Client Information                                                                                  |  |  |  | Section B<br>Required Project Information |  |  |  | Section C<br>Invoice Information |  |  |  | Section D<br>Rush Status (Subject to Scheduling)                    |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------------------------------|--|--|--|----------------------------------|--|--|--|---------------------------------------------------------------------|--|--|--|
| Company: <u>Roose Valley Sewer Services</u>                                                                               |  |  |  | Project Name: <u>Alameda</u>              |  |  |  | Attention: <u>Jennie Morgan</u>  |  |  |  | Standard: 10 Business Days                                          |  |  |  |
| Address: <u>138 W Viles Rd</u>                                                                                            |  |  |  | Project Number:                           |  |  |  | Company Name: <u>Same</u>        |  |  |  | Priority: 5 Business Days (List x 1.50)                             |  |  |  |
| City/State/Zip: <u>Central Point 97502</u>                                                                                |  |  |  | Report To: <u>Jennie Morgan</u>           |  |  |  | Address:                         |  |  |  | Express: 3 Business Days (List x 1.75)                              |  |  |  |
| Email: <u>jmorgan@rvss.us</u>                                                                                             |  |  |  | Copy To:                                  |  |  |  | P.O. #                           |  |  |  | Rush: 2 Business Days (List x 2.00)                                 |  |  |  |
| Phone: <u>503-806-9772</u>                                                                                                |  |  |  |                                           |  |  |  |                                  |  |  |  | Rush: 1 Business Day (List x 2.50)                                  |  |  |  |
| Collected By (Print): <u>Jennie Morgan</u>                                                                                |  |  |  |                                           |  |  |  |                                  |  |  |  | Rush: Same Day (List x 3.00)                                        |  |  |  |
| Collected By (Sign): <u>Jennie Morgan</u>                                                                                 |  |  |  |                                           |  |  |  |                                  |  |  |  | Authorized Yes <input type="checkbox"/> No <input type="checkbox"/> |  |  |  |
| Email Report <input checked="" type="checkbox"/> Mail Report <input type="checkbox"/> Fax Report <input type="checkbox"/> |  |  |  |                                           |  |  |  |                                  |  |  |  | 20110729                                                            |  |  |  |

| Section E<br>Sample Information |           |         |                |                |                   |                    |  |  |  | Section F<br>Matrix: DW - Drinking Water WW - Wastewater W - Water S - Soil/Solid SL - Sledge O - Oil WP - Wipe OT - Other |                      |                       |                |  |  |  |  |  |  |
|---------------------------------|-----------|---------|----------------|----------------|-------------------|--------------------|--|--|--|----------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------|----------------|--|--|--|--|--|--|
| Sample ID                       | Comp/Grab | Matrix* | Date Collected | Time Collected | No. of Containers | Analysis Requested |  |  |  |                                                                                                                            | Remarks / Field Data | NRC Sample # Use Only | (Lab Use Only) |  |  |  |  |  |  |
| Northridge Terrace              | G         | W       | 11-15-20       | 14:00          | 1                 | TOC                |  |  |  |                                                                                                                            |                      |                       | 01             |  |  |  |  |  |  |
| W. Valley View                  | G         | W       | 11-15-20       | 15:00          | 1                 | TOC                |  |  |  |                                                                                                                            |                      |                       | 02             |  |  |  |  |  |  |
|                                 |           |         |                |                |                   |                    |  |  |  |                                                                                                                            |                      |                       |                |  |  |  |  |  |  |
|                                 |           |         |                |                |                   |                    |  |  |  |                                                                                                                            |                      |                       |                |  |  |  |  |  |  |
|                                 |           |         |                |                |                   |                    |  |  |  |                                                                                                                            |                      |                       |                |  |  |  |  |  |  |
|                                 |           |         |                |                |                   |                    |  |  |  |                                                                                                                            |                      |                       |                |  |  |  |  |  |  |
|                                 |           |         |                |                |                   |                    |  |  |  |                                                                                                                            |                      |                       |                |  |  |  |  |  |  |
|                                 |           |         |                |                |                   |                    |  |  |  |                                                                                                                            |                      |                       |                |  |  |  |  |  |  |
|                                 |           |         |                |                |                   |                    |  |  |  |                                                                                                                            |                      |                       |                |  |  |  |  |  |  |
|                                 |           |         |                |                |                   |                    |  |  |  |                                                                                                                            |                      |                       |                |  |  |  |  |  |  |
|                                 |           |         |                |                |                   |                    |  |  |  |                                                                                                                            |                      |                       |                |  |  |  |  |  |  |
|                                 |           |         |                |                |                   |                    |  |  |  |                                                                                                                            |                      |                       |                |  |  |  |  |  |  |

| Section G<br>Lab Use Only                                                                              |                                                                                      |  |  |
|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|--|
| Temp: <u>5.00C</u>                                                                                     | IR Therm ID: <u>D</u>                                                                |  |  |
| ≤6°C: Yes <input type="checkbox"/> No <input type="checkbox"/>                                         | Received on Ice: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |  |  |
| Number of Bottles Received: <u>2</u>                                                                   |                                                                                      |  |  |
| pH Checked:                                                                                            |                                                                                      |  |  |
| COC Seals Intact: Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> |                                                                                      |  |  |
| Field Blank Included: Yes <input type="checkbox"/> No <input type="checkbox"/>                         |                                                                                      |  |  |

| Section H<br>Payment Information |                                                                                                                                                              |                                                                                                                                                                                |                                  |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Received By: <u>Naomi Orr</u>    | Received Via: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEX <input type="checkbox"/> Other <input checked="" type="checkbox"/> Hand | Payment: <input checked="" type="checkbox"/> Invoice <input type="checkbox"/> Cash <input type="checkbox"/> VISA/M/C <input type="checkbox"/> Check # <input type="checkbox"/> | Amount: <input type="checkbox"/> |





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## Data Flags

WO#: 20110729  
Date: 11/30/2020

- B Analyte detected in the associated method blank.
- BA BOD Alternative Calculation: The initial results performed by Standard Methods did not fall within parameters of the Standard Methods calculation. An alternate approved calculation was performed using the HACH method and the value reported is an estimated concentration.
- C Sample(s) does not meet NELAP/ORELAP sample acceptance criteria. See Case Narrative.
- C1 Sample(s) does not meet NELAP/ORELAP sample acceptance criteria for temperature.
- CF Results confirmed by re-analysis.
- CU Cleanup performed as specified by method.
- D1 The diesel elution pattern for the sample is not typical.
- D2 The sample appears to be a heavier hydrocarbon range than diesel.
- D3 The sample appears to be a lighter hydrocarbon range than diesel.
- D4 Detected hydrocarbons do not have pattern and range consistent with typical petroleum products and may be due to biogenic interference.
- D5 Detected hydrocarbons in the diesel range appear to be weathered diesel.
- E Estimated value.
- ER Elevated reporting limit due to matrix. Report limits (MDLs, MRLs & PQLs) are adjusted based on variations in sample preparation amounts, analytical dilutions, and percent solids, where applicable.
- FC Fecal Coliforms: Sample(s) received past 40 CFR Part 136 specified holding time. Results reported as estimated values.
- G1 The gasoline elution pattern for the sample is not typical.
- G2 The sample appears to be a heavier hydrocarbon range than gasoline.
- G3 The sample appears to be a lighter hydrocarbon range than gasoline.
- G4 Detected hydrocarbons in the gasoline range appear to be weathered gasoline.
- HP Sample re-analysis performed outside of method specified holding time.
- HR Sample received outside of method specified holding time.
- HS Sample analyzed for volatile organics contained headspace.
- HT ☐ At the client's request, the sample was analyzed outside of method specified holding time.
- H Analysis performed outside of method specified holding time.
- J Analyte detected below the Minimum Reporting Limit (MRL) and above the Method Detection Limit (MDL). The J flag result is an estimated value and the user should be aware that this data is of limited reliability.
- L Dissolved metals were not filtered within 15 minutes of collection per 40 CFR Part 136.
- MI Surrogate, Duplicate Sample (DUP) or Matrix Spikes recoveries are out of control limits due to matrix interference. Sample results may be biased.
- N See Case Narrative on page 2 of report.
- NLR No Legionella Recovered.
- PLR Presence of Legionella Recovered.
- Q Initial calibration verification (ICV), continuing calibration verification (CCV) or laboratory control sample (LCS) exceeded high recovery limits, but associated samples are non-detect and the sample results are not affected. Data meets EPA/NELAP requirements.
- R Relative percent difference (RPD) is outside of the accepted recovery limits.
- R1 Relative percent difference (RPD) is outside of the accepted recovery limits. However, analyses are not controlled on RPD values for sample concentrations that are less than the reporting limit.
- R3 The relative percent difference (RPD) and/or percent recovery for the duplicate (DUP) or matrix spike (MS)/matrix spike duplicate (MSD) cannot be accurately calculated due to the concentration of analyte already present in the sample.
- R4 Duplicate analysis failed due to result being at or near the method reporting limit.
- S Surrogate and/or matrix spike recovery is outside of the accepted recovery limits. Sample results may be biased.
- S1 Surrogate or matrix spike recovery is outside of control limits due to dilution necessary for analysis.
- SC Sub-contracted to another laboratory for analysis.
- SP Sample(s) were not collected per EPA Method 5035A protocols. The results are considered minimum values.
- # Value exceeds regulatory level for TCLP contaminant.
- X1 The motor oil elution pattern for the sample is not typical.
- X2 The sample appears to be a heavier hydrocarbon range than motor oil.
- X3 The sample appears to be a lighter hydrocarbon range than motor oil.
- \* Value exceeds Maximum Contaminant Level or is outside the acceptable range.

Original