
Water Permits Division



Application Form 2A

New and Existing Publicly Owned Treatment Works

NPDES Permitting Program

Note: Complete this form if your facility is a new or existing publicly owned treatment works.

Paperwork Reduction Act Notice

The U.S. Environmental Protection Agency estimates the average burden to collect information and complete Form 2A to average between 4.7 and 24.7 hours, depending on the number of sections the applicant must complete. The estimate includes time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the collection of information. Send comments about the burden estimate or any other aspect of this collection of information to the Chief, Information Policy Branch (PM-223), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, DC 20503, marked "Attention: Desk Officer for EPA."

FORM 2A—GENERAL INSTRUCTIONS

Who Must Complete Form 2A?

All new and existing publicly owned treatment works (POTWs) and other dischargers designated by the National Pollutant Discharge Elimination System (NPDES) permitting authority must complete Form 2A. Note that you may wish to consult the “General Instructions” of NPDES Application Form 1 to determine if your treatment works is required to submit any additional NPDES application forms.

At the state level, either the U.S. Environmental Protection Agency (EPA) or an approved state agency administers the NPDES permit program. If you are located in a jurisdiction in which an EPA regional office administers the NPDES permit program, you should use Form 2A and all other applicable forms described in these instructions. If you are located in a jurisdiction where a state administers the NPDES permit program, contact the state to determine the forms you should complete. States often develop their own application forms rather than use the federal forms. See <http://www.epa.gov/npdes/npdes-state-program-information> for a list of states that have approved NPDES permit programs and those that do not.

Exhibit 2A–1 (see end of this section) provides contact information for each of EPA’s 10 regional offices. Since the exhibit’s content is subject to change, consult EPA’s website for the latest information: <http://www.epa.gov/aboutepa#regional>.

Where to File Your Completed Form

- If you are in a jurisdiction with an approved state NPDES permit program, file according to the instructions on the state forms.
- If you are in a jurisdiction where EPA is the NPDES permitting authority (i.e., the state is *not* an NPDES-authorized state), mail the completed application forms to the EPA regional office that covers the state in which your facility is located (see Exhibit 2A–1).

When to File Your Completed Form

Form 2A must be submitted at least 180 days before your present NPDES permit expires or, if you are a new discharger, at least 180 days before the date on which the discharge is to commence, unless the NPDES permitting authority has granted permission for a later date.

Fees

EPA does not require applicants to pay a fee for applying for NPDES permits. However, states that administer the NPDES permit program may charge fees. Consult with state officials for further information.

Public Availability of Submitted Information

EPA will make information from NPDES permit application forms available to the public for inspection and copying upon request. You may not claim any information on Form 2A (or related attachments) as confidential.

You may make a claim of confidentiality for any information that you submit to EPA that goes beyond the information required by

Form 2A. If you do not assert a claim of confidentiality at the time you submit your information to the NPDES permitting authority, EPA may make the information available to the public without further notice to you. EPA will handle claims of confidentiality in accordance with the Agency’s business confidentiality regulations at Part 2 of Title 4 of the *Code of Federal Regulations* (CFR).

Completion of Forms

Form 2A is divided into six major sections. It also contains five effluent monitoring tables (Tables A through E) and an industrial discharge information table (Table F), all located at the end of the form. Note that not all applicants are required to complete each section of the form or all of the tables. The questions on the form will direct you to the items and tables you must complete.

Print or type in the specified areas only. If you do not have enough space on the form to answer a question, you may continue on additional sheets, as necessary, using a format consistent with the form.

Provide your EPA Identification Number from the Facility Registry Service, NPDES permit number, and facility name at the top of each page of Form 2A and any attachments. If your facility is new (i.e., not yet constructed), write or type “New Facility” in the space provided for the EPA Identification Number and NPDES permit number. If you do not know your EPA Identification Number, contact your NPDES permitting authority. See Exhibit 2A–1 for contact information. Additionally, for Tables A through E, provide the applicable outfall number at the top of each page.

Do not leave any response areas blank unless the form directs you to skip them. If the form directs you to respond to an item that does not apply to your facility or activity, enter “NA” for “not applicable” to show that you considered the item and determined a response was not necessary for your facility.

If you have previously submitted information that answers a specific question to EPA or an approved state NPDES agency, you may either repeat the information in the space provided or attach a copy of the previous submission.

Note for New Dischargers

Provide all information available to you at the time you complete Form 2A. If you do not have information to respond to an item because your facility has yet to discharge, write or type “data are not available” next to the item on the form. Note that you are required to submit *actual* data no later than 24 months after your facility commences to discharge.

The NPDES permitting authority will consider your application complete when it and any supplementary material are received and completed according to the authority’s satisfaction. The NPDES permitting authority will judge the completeness of any application independently of the status of any other permit application or permit for the same facility or activity.

Definitions

The legal definitions of all key terms used in the various NPDES application forms are included in the “Glossary” at the end of these instructions.

FORM 2A—GENERAL INSTRUCTIONS CONTINUED

Exhibit 2A–1. Addresses of EPA Regional Contacts and Covered States

<p>REGION 1 U.S. Environmental Protection Agency, Region 1 5 Post Office Square, Suite 100, Boston, MA 02109-3912 Phone: (617) 918-1111; toll free: (888) 372-7341 Fax: (617) 918-0101 Website: http://www.epa.gov/aboutepa/epa-region-1-new-england Covered states: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont</p>	<p>REGION 6 U.S. Environmental Protection Agency, Region 6 1445 Ross Avenue, Suite 1200, Dallas, TX 75202-2733 Phone: (214) 665-2200; toll free: (800) 887-6063 Fax: (214) 665-7113 Website: http://www.epa.gov/aboutepa/epa-region-6-south-central Covered states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas</p>
<p>REGION 2 U.S. Environmental Protection Agency, Region 2 290 Broadway, New York, NY 10007-1866 Phone: (212) 637-3000; toll free: (877) 251-4575 Fax: (212) 637-3526 Website: http://www.epa.gov/aboutepa/epa-region-2 Covered states: New Jersey, New York, Virgin Islands, and Puerto Rico</p>	<p>REGION 7 U.S. Environmental Protection Agency, Region 7 11201 Renner Boulevard, Lenexa, KS 66219 Phone: (913) 551-7003; toll free: (800) 223-0425 Website: http://www.epa.gov/aboutepa/epa-region-7-midwest Covered states: Iowa, Kansas, Missouri, and Nebraska</p>
<p>REGION 3 U.S. Environmental Protection Agency, Region 3 1650 Arch Street, Philadelphia, PA 19103-2029 Phone: (215) 814-5000; toll free: (800) 438-2474 Fax: (215) 814-5103 Website: http://www.epa.gov/aboutepa/epa-region-3-mid-atlantic Covered states: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia</p>	<p>REGION 8 U.S. Environmental Protection Agency, Region 8 1595 Wynkoop Street, Denver, CO 80202-1129 Phone: (303) 312-6312; toll free: (800) 227-8917 Fax: (303) 312-6339 Website: http://www.epa.gov/aboutepa/epa-region-8-mountains-and-plains Covered states: Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming</p>
<p>REGION 4 U.S. Environmental Protection Agency, Region 4 Sam Nunn Atlanta Federal Center 61 Forsyth Street, SW, Atlanta, GA 30303-8960 Phone: (404) 562-9900; toll free: (800) 241-1754 Fax: (404) 562-8174 Website: http://www.epa.gov/aboutepa/about-epa-region-4-southeast Covered states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee</p>	<p>REGION 9 U.S. Environmental Protection Agency, Region 9 75 Hawthorne Street, San Francisco, CA 94105 Phone: (415) 947-8000; toll free: (866) EPA-WEST Fax: (415) 947-3553 Website: http://www.epa.gov/aboutepa/epa-region-9-pacific-southwest Covered states: Arizona, California, Hawaii, Nevada, Guam, American Samoa, and Trust Territories</p>
<p>REGION 5 U.S. Environmental Protection Agency, Region 5 77 West Jackson Boulevard, Chicago, IL 60604-3507 Phone: (312) 353-2000; toll free: (800) 621-8431 Fax: (312) 353-4135 Website: http://www.epa.gov/aboutepa/epa-region-5 Covered states: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin</p>	<p>REGION 10 U.S. Environmental Protection Agency, Region 10 1200 Sixth Avenue, Suite 900, Seattle, WA 98101 Phone: (206) 553-1200; toll free: (800) 424-4372 Fax: (206) 553-2955 Website: http://www.epa.gov/aboutepa/epa-region-10-pacific-northwest Covered states: Alaska, Idaho, Oregon, and Washington</p>

Section 1. Basic Application Information for All Applicants

Facility Information

Item 1.1. Enter the facility's official or legal name. Do not use a colloquial name. Provide the *mailing address* of the facility. Next, give the name (first and last), title, work telephone number, and email address of the person who is thoroughly familiar with the operation of the facility and with the facts reported in this application.

Include a complete *location address* for the facility if different from the mailing address. If the facility lacks a street name or route number, give the most accurate, alternative geographic information (e.g., section number or quarter section number from county records or "at intersection of Routes 425 and 22").

Item 1.2. Indicate whether the application is for a facility that has not yet commenced discharge. If yes, be advised that you are required to submit *actual* data no later than 24 months after your facility commences to discharge.

Applicant Information

Item 1.3. Indicate if the applicant is different from the entity listed under Item 1.1. If so, specify the applicant name and address. Provide the name (first and last) of a contact, including his/her title, telephone number, and email address.

Item 1.4. Indicate if the applicant is the facility's owner, operator, or both.

Item 1.5. Specify whether the NPDES permitting authority should send correspondence to the facility or the applicant.

Existing Environmental Permits

Item 1.6. Indicate all environmental permits or construction approvals received or applied for (including dates) under the noted programs. Print or type the corresponding permit number for each.

Collection System and Population Served

Item 1.7. Specify the municipalities served by the treatment works, including unincorporated connector districts. For each municipality, indicate the population served, the percentage of each collection system type if known (e.g., separate sanitary or combined storm and sanitary), and collection system ownership status. Finally, indicate the total percentage of sewer line each type comprises.

Do not report privately owned collection systems discharging industrial waste to the treatment works in Item 1.7. Those facilities must be reported on Table F.

Indian Country

Item 1.8. Indicate if the POTW is located in Indian Country.

Item 1.9. Note whether the treatment works discharges to a receiving stream that flows through Indian Country.

Design and Actual Flow Rates

Item 1.10. Provide the facility's *design* flow rate in million gallons per day (mgd). Next, specify the facility's *actual* annual average daily flow rate and maximum daily flow rate for each of the previous three years (in mgd).

Discharge Points by Type

Item 1.11. Provide the facility's total number of effluent discharge points to waters of the United States by type (e.g., treated effluent, untreated effluent, combined sewer overflows, bypasses, and constructed emergency overflows).

Outfalls and Other Discharge or Disposal Methods

Outfalls Other Than to Waters of the United States

Item 1.12. Indicate whether the POTW discharges wastewater to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the United States. If yes, continue to Item 1.13. If no, skip to Item 1.14.

Item 1.13. Specify the location of each surface impoundment, the average daily volume discharged to each surface impoundment in gallons per day (gpd), and whether the discharge is continuous or intermittent.

Item 1.14. Indicate if the facility applies wastewater to land. If yes, continue to Item 1.15. If no, skip to Item 1.16.

Item 1.15. Provide the location of each land application site; the size of each land application site (in acres); the average daily volume applied to each land application site (in gpd), and whether the land application is continuous or intermittent.

Item 1.16. Note whether the facility's effluent is transported to another facility for treatment prior to discharge. If yes, continue to Item 1.17. If no, skip to Item 1.21.

Item 1.17. Describe the means by which the effluent is transported, such as by tank truck or pipe.

Item 1.18. Specify whether the facility's effluent is transported by a party other than the applicant. If yes, continue to Item 1.19. If no, skip to Item 1.20.

Item 1.19. Provide the name, mailing address, contact person, phone number, and email address of the entity that transports the discharge.

Item 1.20. Provide the name, mailing address, contact person, phone number, email address, and NPDES permit number (if any) of the receiving facility. Also specify the average daily flow rate from the facility into the receiving facility in mgd.

Item 1.21. Indicate if wastewater is disposed of in a manner other than those already mentioned in Items 1.14 through 1.21 that do not have outlets to waters of the United States, such as underground percolation and underground injections. If yes, continue to Item 1.22. If no, skip to Item 1.23.

Item 1.22. Provide a description of the disposal method, including the location and size of each disposal site; the annual average daily discharge volume (in gpd), and whether disposal through this method is continuous or intermittent.

Variance Requests

Item 1.23. If known at the time of application, check all of the authorized variances that you plan to request or renew. Note that you are not being asked to submit any other information at this time. Contact your NPDES permitting authority to determine the

specifics of what you should provide and when. The ability to request a variance is not limited to the time of application, and an applicant may request a variance consistent with statutory and regulatory requirements.

Contractor Information

Item 1.24. Indicate if any of the operational or maintenance activities associated with wastewater treatment and effluent quality of the POTW are the responsibility of a contractor. If yes, continue to Item 1.25. If no, skip to Section 2.

Item 1.25. Provide a listing of all contractors (by company name). For each, specify the mailing address, a contact name, telephone number, and email address. Also summarize the operational and maintenance responsibilities of each contractor.

Section 2. Additional Information

Outfalls to Waters of the United States

Design Flow

Item 2.1. Indicate whether the treatment works has a design flow greater than or equal to 0.1 mgd. If yes, continue to Item 2.2. If no, skip to Section 3.

Inflow and Infiltration

Item 2.2. Specify the POTW's current average daily volume of inflow and infiltration (in gpd) and steps the facility is taking to minimize inflow and infiltration.

Topographic Map

Item 2.3. Prepare a topographic map (or other map if a topographic map is unavailable) extending at least one mile beyond property boundaries of the treatment plant, including all unit processes and showing the following: (1) treatment plant area and unit processes; (2) major pipes or other structures through which wastewater enters the treatment plant and the pipes or other structures through which treated wastewater is discharged from the treatment plant (include outfalls from bypass piping, if applicable); (3) each well where fluids from the treatment plant are injected underground; (4) wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within ¼ mile of the treatment works' property boundaries; (5) sewage sludge management facilities (including onsite treatment, storage, and disposal sites); and (6) location at which waste classified as hazardous under the Resource Conservation and Recovery Act (RCRA) enters the treatment plant by truck, rail, or dedicated pipe.

On each map, include the map scale, a meridian arrow showing north, and latitude and longitude to the nearest second. Latitude and longitude coordinates may be obtained in a variety of ways, including use of hand held devices (e.g., a GPS enabled smartphone), internet mapping tools (e.g., <https://mynasadata.larc.nasa.gov/latitudelongitude-finder/>), geographic information systems (e.g., ArcView), or paper maps from trusted sources (e.g., U.S. Geological Survey or USGS).

On all maps of rivers, show the direction of the current. In tidal waters, show the directions of ebb and flow tides.

You may develop your map by going to USGS's National Map

website at <http://nationalmap.gov/>. (For a map from this site, use the traditional 7.5-minute quadrangle format. If none is available, use a USGS 15-minute series map.) You may also use a plat or other appropriate map. Briefly describe land uses in the map area (e.g., residential, commercial). An example of an acceptable location map is shown as Exhibit 2A–2 at the end of these instructions. **Note:** Exhibit 2A–2 is provided for illustration only; it does not show an actual facility. Note that you have completed your topographic map and attached it to the application.

Flow Diagram

Item 2.4. Provide a process flow diagram or schematic showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. This includes a water balance showing all treatment units, including disinfection (e.g., chlorination and dechlorination), and showing daily average flow rates at influent and discharge points, and approximate daily flow rates between treatment units. Also provide a narrative description of the diagram/schematic. Answer "Yes" to Item 2.4 once you have completed and attached your diagram to the application.

Scheduled Improvements and Schedules of Implementation

Item 2.5. Indicate whether any improvements to the facility are scheduled. If yes, list and briefly describe each scheduled improvement and continue to Item 2.6. If no, skip to Section 3.

Item 2.6. For each scheduled improvement, indicate the outfall number of each outfall affected and the scheduled or actual dates of completion for the following: (1) commencement of construction, (2) completion of construction, (3) commencement of discharge, and (4) attainment of operational level.

Item 2.7. Note whether the appropriate permits/clearances concerning other federal/state requirements have been obtained and briefly explain your response.

Section 3. Information on Effluent Discharges

Description of Outfalls

Item 3.1. Provide a description of each of the POTW's wastewater discharge outfalls. The application form provides reporting space for three outfalls. If your facility has more than this number, attach additional sheets as necessary.

For each outfall, provide the outfall number. Indicate the state, county, and city or town where each outfall is located. Note the distance from shore in feet and the depth below the surface in feet. Specify the average daily flow rate through the outfall in mgd. Also specify the latitude and longitude of each outfall to the nearest second. Latitude and longitude coordinates may be obtained in a variety of ways, including use of hand held devices (e.g., a GPS enabled smartphone), internet mapping tools (e.g., <https://mynasadata.larc.nasa.gov/latitudelongitude-finder/>), geographic information systems (e.g., ArcView), or paper maps from trusted sources (e.g., USGS). The location of each outfall (i.e., where the coordinates are collected) shall be the point where the discharge is released into a water of the United States. For further guidance, refer to <http://www.epa.gov/geospatial/latitudelongitude-data-standard>.

Seasonal or Periodic Discharge Data

Item 3.2. Indicate whether any of the outfalls described under Item 3.1 have seasonal or periodic discharges. If yes, continue to Item 3.3. If no, skip to Item 3.4.

Item 3.3. Specify the following for each applicable outfall: (1) number of times per year discharge occurs, (2) average duration of each discharge, (3) average flow of each discharge in mgd, and (4) months in which discharge occurs.

Diffuser Type

Item 3.4. Note whether any of the outfalls listed under Item 3.1 are equipped with a diffuser. If yes, continue to Item 3.5. If no, skip to Item 3.6.

Item 3.5. Briefly describe the diffuser type at each applicable outfall.

Waters of the United States

Item 3.6. Note whether the POTW discharges or plans to discharge wastewater to waters of the United States from one or more discharge points. If yes, continue to Item 3.7. If no, skip to Section 6.

Receiving Water Description

Item 3.7. Provide receiving water and related information in the table provided on the form (if known): (1) name of receiving water, (2) name of watershed/river/stream system and U.S. Soil Conservation Service 14-digit watershed code, (3) name of state management/river basin and U.S. Geological Survey (USGS) 8-digit hydrologic unit code, (4) acute and chronic critical low flow in cubic feet per second (cfs) and total hardness of receiving stream at critical low flow, in milligrams per liter (mg/L) of calcium carbonate, if applicable.

Treatment Description

Item 3.8. Specify the highest level of treatment provided for discharges from each outfall (e.g., primary, equivalent to secondary, secondary, or advanced). Also indicate the following design removals (in percent) for the following parameters for each outfall: (1) biochemical oxygen demand (BOD₅ or CBOD₅), (2) total suspended solids (TSS), (3) phosphorus (if applicable), (4) nitrogen (if applicable), and (5) any other removals that an advanced treatment system is designed to achieve.

Item 3.9. Provide a description of the type(s) of disinfection used for wastewater discharged through each outfall. Indicate the seasons the disinfection type is used. Note whether the POTW dechlorinates if disinfection is accomplished through chlorination. Otherwise, check "Not Applicable."

Effluent Testing Data and Tables A through E

Items 3.10 to 3.26. These items require you to collect and report data for the parameters and pollutants listed in Tables A through E, located at the end of Form 2A. The instructions for completing the tables are table-specific, as are the criteria for determining who should complete them.

Important note: Read the "General Instructions for Reporting, Sampling, and Analysis" later in these instructions before

completing Items 3.10 to 3.26 and Tables A through E.

Item 3.10 and Table A. All applicants that discharge wastewater to waters of the United States must provide effluent data for Table A parameters. Respond "Yes" to Item 3.10 when you have completed Table A and attached it to your application.

Item 3.11. Answer whether the POTW has conducted any whole effluent toxicity (WET) tests during the 4.5 years prior to the date of the application on any of the facility's discharges or on any receiving water near the discharge points. If yes, continue to Item 3.12. If no, skip to Item 3.13.

Item 3.12. For each applicable outfall, note the number of acute and chronic WET tests conducted since the last permit reissuance of the facility's discharges or of the receiving water near the discharge points.

Item 3.13. Note whether the POTW has a design flow greater than or equal to 0.1 mgd. If yes, continue to Item 3.14. If no, skip to Item 3.16.

Item 3.14 and Table B. Answer whether the treatment works uses chlorine for disinfection, uses it elsewhere in the treatment process, or otherwise has reasonable potential to discharge chlorine in its effluent. If yes, complete Table B including chlorine. If no, complete Table B, omitting chlorine.

Item 3.15. Answer "Yes" when you have completed monitoring for all applicable Table B parameters and attached the results to your application.

Item 3.16 and Screen for Tables C through E. Indicate whether one or more of the conditions apply to your POTW. If yes, continue to Item 3.17. If no, skip to Section 4.

Item 3.17 and Table C. Answer "Yes" to indicate you have completed monitoring for all applicable Table C pollutants and attached the results to your application package.

Item 3.18 and Table D. Answer "Yes" to indicate you have completed monitoring for applicable Table D pollutants required by your NPDES permitting authority and attached the results to your application package, or "No" if the NPDES permitting authority has not required additional sampling for the pollutants in Table D.

Item 3.19 and Additional Screen for Table E. Answer whether the POTW conducted either (1) a minimum of four quarterly WET tests for one year preceding this permit application or (2) at least four annual WET tests in the past 4.5 years. If yes, continue to Item 3.20. If no, complete tests and Table E and then skip to Item 3.26.

Item 3.20 and Additional Screen for Table E. Report whether you have previously submitted the results of the WET tests indicated in Item 3.19 to your NPDES permitting authority. If yes, continue to Item 3.21. If no, provide the results in Table E and skip to Item 3.26.

Item 3.21. Report the dates the testing data were submitted to your NPDES permitting authority and provide a summary of the results.

Item 3.22. Regardless of how you may have provided the results of previously conducted WET analyses to your NPDES permitting authority, indicate if any of the tests resulted in toxicity. If yes,

FORM 2A—LINE-BY-LINE INSTRUCTIONS CONTINUED

continue to Item 3.23. If no, skip to Item 3.26.

Item 3.23. Describe the cause(s) of toxicity.

Item 3.24. Indicate if the POTW has conducted a toxicity reduction evaluation. If yes, continue to Item 3.25. If no, skip to Item 3.26.

Item 3.25. Provide details of any toxicity reduction evaluations performed.

Item 3.26. Answer “Yes” when you have completed Table E for all applicable outfalls and attached the results to the application package, or answer “No” if the item is not applicable because you previously submitted WET data to your NPDES permitting authority.

Section 4. Industrial Discharges, Table F, and Hazardous Wastes

Item 4.1. Indicate if the POTW receives discharges from significant industrial users (SIUs) or non-significant categorical industrial users (NSCIUs), including SIUs and NSCIUs that truck or haul waste. If yes, continue to Item 4.2. If no, skip to Item 4.7.

1. SIUs are defined as:

- a. All industrial users subject to categorical pretreatment standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N (CIUs); and
- b. Any other industrial user per 40 CFR 403.3 that:
 - i. Discharges an average of 25,000 gpd or more of process wastewater to the treatment works (with certain exclusions); or
 - ii. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
 - iii. Is designated as an SIU by the control authority.

2. The control authority may determine that an Industrial User subject to categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N is a NSCIU rather than a SIU on a finding that the Industrial User never discharges more than 100 gpd of total categorical wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater, unless specifically included in the Pretreatment Standard) and the following conditions are met:

- a. The Industrial User, prior to the control authority's finding, has consistently complied with all applicable categorical Pretreatment Standards and Requirements;
- b. The Industrial User annually submits the certification statement required in 40 CFR 403.12(q) together with any additional information necessary to support the certification statement; and
- c. The Industrial User never discharges any untreated concentrated wastewater.

Item 4.2. Indicate the number of SIUs and NSCIUs that discharge to the POTW.

Item 4.3. Answer whether the POTW has an approved

pretreatment program, which is defined at 40 CFR 403.3 as a program administered by a POTW that meets the criteria established in 40 CFR 403.8 and 403.9 and that has been approved by the NPDES permitting authority.

Item 4.4. Answer whether you have submitted either of the following to the NPDES permitting authority that contains information substantially identical to that required in Table F: (1) a pretreatment program annual report submitted within one year of the application or (2) a pretreatment program. If yes, continue to Item 4.5. If no, skip to Item 4.6.

Item 4.5. Identify the title and date of the pretreatment program annual report or pretreatment program referenced in Item 4.4 and skip to Item 4.7.

Item 4.6 and Table F. Complete Table F by providing the following information for each SIU that discharges to the POTW: (1) name and mailing address; (2) description of all industrial processes that affect or contribute to each SIU's discharge; (3) a list of the principal products and raw materials that affect or contribute to the SIU's discharge; (4) average daily volume of wastewater discharged by each SIU, indicating the amount attributable to process flow and non-process flow; (5) whether the SIU is subject to local limits; (6) whether the SIU is subject to categorical standards and the categories/subcategories under which the SIU is subject; and (7) whether any problems (e.g., upsets, pass-through interference) have occurred at the POTW that can be attributed to the SIU in the past 4.5 years. Answer “Yes” to Item 4.6 when you have completed and attached Table F to the application package.

Note: SIUs include users that truck or haul industrial waste to the POTW. Information for these users must be provided in Table F.

Item 4.7. Indicate if the POTW receives or has been notified that it will receive by truck, rail, or dedicated pipe any wastes that are regulated as RCRA hazardous wastes pursuant to 40 CFR 261. If yes, continue to Item 4.8. If no, skip to Item 4.9.

Item 4.8. For each hazardous waste received, provide the hazardous waste number, the method by which the waste is received (e.g., by truck, dedicated pipe, rail, etc.), and the amount of waste received annually (specify units).

Item 4.9. Answer whether the POTW receives, or has been notified that it will receive, wastewaters that originate from remedial activities, including those undertaken pursuant to Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Sections 3004(u) or 3008(h) of RCRA. If yes, continue to Item 4.10. If no, skip to Section 5.

Item 4.10. Answer whether the POTW receives (or expects to receive) less than 15 kilograms per month of non-acute hazardous wastes as specified at 40 CFR 261.30(d) and 261.33(e). If yes, skip to Section 5. If no, continue to Item 4.11.

Item 4.11. In an attachment to the application, provide an identification and description of the site(s) or facility(ies) at which the wastewater originates; the identities of the wastewater's hazardous constituents, as listed in Appendix VII of 40 CFR 261, if known; and the extent of treatment, if any, the wastewater receives

General Instructions for Reporting, Sampling, and Analysis

Important note: Read these instructions before completing Tables A through E and Section 3 of Form 2A.

General Items

Complete the applicable tables for each outfall at your facility. Be sure to note the EPA Identification Number, NPDES permit number, facility name, and applicable outfall number at the top of each page of the tables and any associated attachments.

You may report some or all of the required data by attaching separate sheets of paper instead of completing Tables A through E for each of your outfalls, so long as the sheets contain all of the required information and are similar in format to Tables A through E. For example, you may be able to print a report in a compatible format from the data system used in your analysis of metals completed under Table C.

Note for new dischargers. Provide all information available to you at the time you complete Form 2A. If you do not have information to respond to an item because your facility has yet to discharge, write or type "data are not available" next to the item on the form. Note that you are required to submit *actual* data no later than 24 months after your facility commences discharge.

Reporting of Effluent Data

Where effluent data are requested, do not provide information on CSOs. The latter information is requested instead under Section 5 of Form 2A.

Provide data for each outfall through which effluent is discharged. When an applicant has two or more outfalls with substantially identical effluents, the NPDES permitting authority may allow the applicant to test only one outfall and report that quantitative data as applying to the substantially identical outfall. If the permitting authority grants your request, attach a separate sheet to the application form identifying the outfall tested and describing why the other outfall(s) are substantially identical.

At a minimum, effluent testing data must be based on at least three samples taken within 4.5 years prior to the date of the permit application. Samples must be representative of the seasonal variation in the discharge from each outfall. Existing data may be used, if available, in lieu of sampling done solely for the purpose of this application.

All existing data for pollutants specified in Tables A through D that is collected within 4.5 years of the application must be included in the pollutant data summary that you submit. If, however, you sampled for a specific pollutant on a monthly or more frequent basis, it is only necessary, for such pollutant, to summarize all data collected within 1 year of the application.

Except as specified below, all required quantitative data shall be collected in accordance with sufficiently sensitive analytical methods approved under 40 CFR 136 or required under 40 CFR chapter I, subchapter N or O. A method is "sufficiently sensitive" when:

- The method minimum level (ML) is at or below the level of the applicable water quality criterion for the measured pollutant or pollutant parameter.

- The method ML is above the water quality criterion, but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge.
- The method has the lowest ML of the analytical methods approved under 40 CFR 136 or required under 40 CFR chapter I, subchapter N or O, for the measured pollutant or pollutant parameter.

Consistent with 40 CFR 136, you may provide matrix- or sample-specific MLs rather than the published levels. Further, where you can demonstrate that, despite a good faith effort to use a method that would otherwise meet the definition of "sufficiently sensitive," the analytical results are not consistent with the quality assurance (QA)/quality control (QC) specifications for that method, then the NPDES permitting authority may determine that the method is not performing adequately and the NPDES permitting authority should select a different method from the remaining EPA-approved methods that is sufficiently sensitive consistent with 40 CFR 122.21(e)(3)(i). Where no other EPA-approved methods exist, you must select a method consistent with 40 CFR 122.21(e)(3)(ii).

When there is no analytical method that has been approved under 40 CFR 136; required under 40 CFR chapter I, subchapter N or O, and is not otherwise required by the NPDES permitting authority, you may use any suitable method but shall provide a description of the method. When selecting a suitable method, other factors such as a method's precision, accuracy, or resolution, may be considered when assessing the performance of the method.

Effluent monitoring data must comply with the QA/QC requirements of 40 CFR 136 (and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR 136).

Clearly specify the units of measure on Tables A through E for each parameter/pollutant analyzed. Values should be reported as concentration or mass, except for flow, temperature, pH, color, and fecal coliform organisms, unless otherwise requested or required by the NPDES permitting authority. Flow, temperature, pH, color, and fecal coliform organisms must be reported as mgd, degrees Celsius (°C), standard units, color units, and most probable number per 100 milliliters (MPN/100 mL), respectively. Use the following abbreviations in the columns requiring "units" in Tables A through D.

Concentration	Mass
ppm = parts per million	lbs = pounds
mg/L = milligrams per liter	ton = tons (English tons)
ppb = parts per billion	mg = milligrams
µg/L = micrograms per liter	g = grams
MPN = most probable number per 100 milliliters	kg = kilograms
	T = tonnes (metric tons)

General Instructions for Reporting, Sampling, and Analysis Continued

Grab samples must be used for pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform (including *E. coli*), and volatile organic compounds. For all other pollutants, 24-hour composite samples must be used. For a composite sample, only one analysis of the composite of aliquots is required.

The effluent monitoring data provided must include at least the following for each parameter: (1) the maximum daily discharge based upon actual sample values, (2) average daily discharge for all samples, expressed as concentration or mass, and the number of samples used to obtain this value, (3) the analytical method used, and (4) the threshold level (i.e., method detection limit, minimum level, or other designated method endpoints) for the analytical method used.

Metals must be reported as “total recoverable metal,” unless all approved analytical methods for the metal inherently measure only its dissolved form (e.g., hexavalent chromium) or otherwise directed by the NPDES permitting authority.

Sampling

The collection of samples for the reported analyses should be supervised by a person experienced in performing sampling of domestic wastewater. You may contact your NPDES permitting authority for detailed guidance on sampling techniques and for answers to specific questions. See Exhibit 2A–1 for contact information. Any specific requirements in the analytical methods—for example, for sample containers, sample preservation, holding

times, and the collection of duplicate samples—must be followed. The time when you sample should be representative of your normal operation, to the extent feasible, with your treatment system operating properly with no system upsets. Collect samples from the center of the flow channel, where turbulence is at a maximum, at a site specified in your present NPDES permit, or at any site adequate for the collection of a representative sample.

Further Requirements for Table E, Whole Effluent Toxicity Testing

Each applicant required to perform WET testing must provide results of a minimum of four quarterly tests for a year, from the year preceding the permit application, *or* the results from four tests performed at least annually in the 4.5-year period prior to the application, provided the results show no appreciable toxicity using a safety factor determined by the NPDES permitting authority.

Applicants must conduct tests with multiple species (no less than two species; e.g., fish, invertebrate, plant) and test for acute or chronic toxicity, depending on the range of receiving water dilution. See 40 CFR 122.21(j)(5)(v) for further details.

WET testing must be conducted using methods approved under 40 CFR 136. West coast facilities in Washington, Oregon, California, Alaska, Hawaii, and the Pacific Territories are exempted from 40 CFR 136 chronic methods and must use alternative guidance as directed by the NPDES permitting authority.

FORM 2A—LINE-BY-LINE INSTRUCTIONS CONTINUED

or will receive before entering the POTW. Answer “Yes” to Item 4.11 when you have completed and attached the information to the application package.

Section 5. Combined Sewer Overflows**CSO Map and Diagram**

Item 5.1. Indicate if the treatment works has a combined sewer system. If yes, continue to Item 5.2. If no, skip to Section 6.

Item 5.2. Attach a CSO system map to the application. The map should indicate: (1) all CSO discharge points, (2) sensitive use areas potentially affected by CSOs (e.g., beaches, drinking water supplies, shellfish beds, sensitive aquatic ecosystems, and outstanding national resource waters), and (3) waters supporting threatened and endangered species potentially affected by CSOs. Answer “Yes” to Item 5.2 when you have completed the map and attached it to the application package.

Item 5.3. Prepare a diagram of the CSO collection system. The diagram should show the following: (1) the location of major sewer trunk lines, both combined and separate sanitary; (2) the locations of points where separate sanitary sewers feed into the combined sewer system; (3) in-line and off-line storage structures; (4) the locations of flow-regulating devices; and (5) the locations of pump stations. Answer “Yes” to Item 5.3 when you have completed the diagram and attached it to the application package.

CSO Outfall Description

Item 5.4. Provide the following information for each CSO outfall: (1) outfall number; (2) state, county, city or town and ZIP code in which the outfall is located; (3) latitude and longitude of the outfall, to the nearest second, (4) distance of the outfall from shore and depth of the outfall below water surface. Latitude and longitude coordinates may be obtained in a variety of ways, including use of hand held devices (e.g., a GPS enabled smartphone), internet mapping tools (e.g., <https://mynasadata.larc.nasa.gov/latitudelongitude-finder/>), geographic information systems (e.g., ArcView), or paper maps from trusted sources (e.g., USGS). The location of each CSO outfall (i.e., where the coordinates are collected) shall be the point where the discharge is released into a water of the United States.

CSO Monitoring

Item 5.5. Indicate whether the POTW has monitored any of the following items in the past year for each of its CSO outfalls: (1) rainfall, (2) CSO flow volume, (3) CSO pollutant concentrations; (4) receiving water quality, (5) CSO frequency, and (6) number of storm events.

CSO Events in Past Year

Item 5.6. For each CSO outfall, record (1) the number of CSO events in the past year, (2) the average duration in hours per event, (3) the average volume per CSO event in million gallons, and (4) the minimum rainfall that caused a CSO event in inches of rainfall in the past year. Note whether your responses for sub-items (2) through (4) above are based on actual or estimated data.

CSO Receiving Waters

Item 5.7. For each CSO outfall, record the following receiving water information: (1) name of receiving water; (2) name of watershed/stream system and the U.S. Soil Conservation Service

watershed (14-digit) code, if known; (3) name of the state management/river basin and the USGS 8-digit hydrologic cataloging unit code, if known; and (4) a description of any known water quality impacts on the receiving water caused by the CSO (e.g., permanent or intermittent beach closings, permanent or intermittent shellfish bed closings, fish kills, fish advisories, other recreational loss, or exceedance of any applicable state water quality standard).

Section 6. Checklist and Certification Statement

Item 6.1. Review the checklist provided. In Column 1, mark the sections of Form 2A that you have completed and are submitting with your application. In Column 2, indicate for each section whether you are submitting attachments.

Item 6.2. The Clean Water Act provides for severe penalties for submitting false information on this application form. CWA Section 309(c)(2) provides that “Any person who knowingly makes any false statement, representation, or certification in any application, ...shall upon conviction, be punished by a fine of no more than \$10,000 or by imprisonment for not more than six months, or both.”

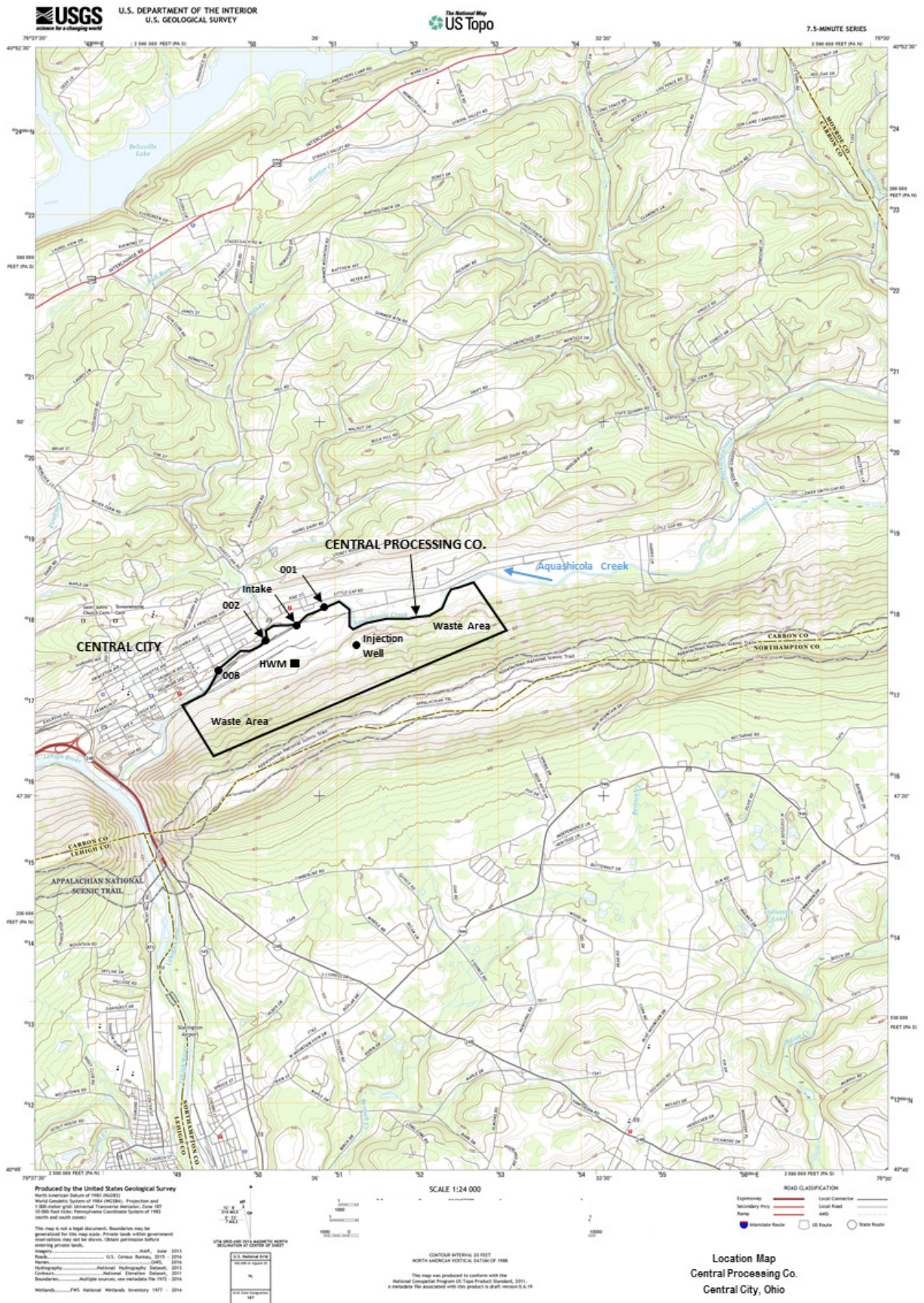
FEDERAL REGULATIONS AT 40 CFR 122.22 REQUIRE THIS APPLICATION TO BE SIGNED AS FOLLOWS:

- A. For a corporation, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (2) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- B. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively.
- C. For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes: (1) The chief executive officer of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

END

**Submit your completed Form 2A and
all associated attachments
(and any other required NPDES application forms)
to your NPDES permitting authority.**

Exhibit 2A-2. Example Topographic Map



FORM 2A—GLOSSARY

Note: This glossary includes terms used in the various NPDES application forms, including Form 2A. The definitions are from the NPDES regulations at 40 CFR 122.2 unless otherwise specified. If you have any questions concerning the meaning of any of these terms, contact your NPDES permitting authority.

ANIMAL FEEDING OPERATION (defined at § 122.23) means a lot or facility (other than an aquatic animal production facility) where the following conditions are met;

- Animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period; and
- Crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

APPLICATION means the EPA standard national forms for applying for a permit, including any additions, revisions, or modifications to the forms; or forms approved by EPA for use in approved states, including any approved modifications or revisions.

APPROVED PROGRAM or **APPROVED STATE** means a State or interstate program which has been approved or authorized by EPA under part 123.

AQUACULTURE PROJECT (defined at § 122.25) means a defined managed water area which uses discharges of pollutants into that designated area for the maintenance or production of harvestable freshwater, estuarine, or marine plants or animals. **DESIGNATED PROJECT AREA** means the portions of the waters of the United States within which the permittee or permit applicant plans to confine the cultivated species, using a method or plan or operation (including, but not limited to, physical confinement) which, on the basis of reliable scientific evidence, is expected to ensure that specific individual organisms comprising an aquaculture crop will enjoy increased growth attributable to the discharge of pollutants, and be harvested within a defined geographic area.

AVERAGE MONTHLY DISCHARGE LIMITATION means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during that month divided by the number of daily discharges measured during that month.

AVERAGE WEEKLY DISCHARGE LIMITATION means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

BEST MANAGEMENT PRACTICES (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs include treatment requirements, operation procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

BIOSOLIDS (*see sewage sludge*).

BYPASS (defined at § 122.41(m)) means the intentional diversion of waste streams from any portion of a treatment facility.

COMBINED SEWER OVERFLOW (CSO) means a discharge from a combined sewer system (CSS) at a point prior to the Publicly Owned Treatment Works (POTW) Treatment Plant (defined at § 403.3(r)).

COMBINED SEWER SYSTEM (CSS) means a wastewater collection system owned by a State or municipality (as defined by section 502(4) of the CWA) which conveys sanitary wastewaters (domestic, commercial and industrial wastewaters) and storm water through a single-pipe system to a Publicly Owned Treatment Works (POTW) Treatment Plant (as defined at § 403.3(r)).

CONCENTRATED ANIMAL FEEDING OPERATION (defined at § 122.23) means an animal feeding operation that is defined as a Large CAFO or as a Medium CAFO by the terms of (A) or (B) below, or that is designated as a CAFO in accordance with 40 CFR 122.23(c). Two or more AFOs under common ownership are considered to be a single AFO for the purposes of determining the number of animals at an operation, if they adjoin each other or if they use a common area or system for the disposal of wastes.

A. **LARGE CONCENTRATED ANIMAL FEEDING OPERATION (LARGE CAFO)** means an AFO that stables or confines as many as or more than the numbers of animals specified in any of the following categories:

1. 700 mature dairy cows, whether milked or dry;
2. 1,000 veal calves;
3. 1,000 cattle other than mature dairy cows or veal calves. Cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs;
4. 2,500 swine each weighing 55 pounds or more;
5. 10,000 swine each weighing less than 55 pounds;
6. 500 horses;
7. 10,000 sheep or lambs;

8. 55,000 turkeys;
9. 30,000 laying hens or broilers, if the AFO uses a liquid manure handling system;
10. 125,000 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system;
11. 82,000 laying hens, if the AFO uses other than a liquid manure handling system;
12. 30,000 ducks (if the AFO uses other than a liquid manure handling system); or
13. 5,000 ducks (if the AFO uses a liquid manure handling system).

B. **MEDIUM CONCENTRATED ANIMAL FEEDING OPERATION (MEDIUM CAFO)** means any AFO with the type and number of animals that fall within any of the ranges listed below and which has been defined or designated as a CAFO. An AFO is defined as a Medium CAFO if:

1. The type and number of animals that it stables and confines falls within any of the following ranges:
 - a. 200 to 699 mature dairy cows, whether milked or dry;
 - b. 300 to 999 veal calves;
 - c. 300 to 999 cattle other than mature dairy cows or veal calves. Cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs;
 - d. 750 to 2,499 swine each weighing 55 pounds or more;
 - e. 3,000 to 9,999 swine each weighing less than 55 pounds;
 - f. 150 to 499 horses;
 - g. 3,000 to 9,999 sheep or lambs;
 - h. 16,500 to 54,999 turkeys;
 - i. 9,000 to 29,999 laying hens or broilers, if the AFO uses a liquid manure handling system;
 - j. 37,500 to 124,999 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system;
 - k. 25,000 to 81,999 laying hens, if the AFO uses other than a liquid manure handling system;
 - l. 10,000 to 29,999 ducks (if the AFO uses other than a liquid manure handling system); or
 - m. 1,500 to 4,999 ducks (if the AFO uses a liquid manure handling system); and
2. Either one of the following conditions are met:
 - a. Pollutants are discharged into waters of the United States through a man-made ditch, flushing system, or other similar man-made device; or
 - b. Pollutants are discharged directly into waters of the United States which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with animals confined in the operation.

CONCENTRATED AQUATIC ANIMAL PRODUCTION FACILITY (defined at § 122.24) means a hatchery, fish farm, or other facility which contains, grows, or holds aquatic animals in either of the following categories, or which the Director designates as such on a case-by-case basis:

- A. Cold water fish species or other cold water aquatic animals including, but not limited to, the *Salmonidae* family of fish (e.g., trout and salmon) in ponds, raceways, or other similar structures which discharge at least 30 days per year but does not include:
 1. Facilities which produce less than 9,090 harvest weight kilograms (approximately 20,000 pounds) of aquatic animals per year; and
 2. Facilities which feed less than 2,272 kilograms (approximately 5,000 pounds) of food during the calendar month of maximum feeding.
- B. Warm water fish species or other warm water aquatic animals including, but not limited to, the *Ameiuridae*, *Cetrarchidae*, and *Cyprinidae* families of fish (e.g., respectively, catfish, sunfish, and minnows) in ponds, raceways, or other similar structures which discharge at least 30 days per year, but does not include:
 1. Closed ponds which discharge only during periods of excess runoff; or
 2. Facilities which produce less than 45,454 harvest weight kilograms (approximately 100,000 pounds) of aquatic animals per year.

CWA means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Public Law 92–500, as amended by Public Law 95–217, Public Law 95–576, Public Law 96–483 and Public Law 97–117, 33 U.S.C. 1251 *et seq.*

CWA AND REGULATIONS means the Clean Water Act (CWA) and applicable regulations promulgated thereunder. In the case of an approved State program, it includes State program requirements.

DAILY DISCHARGE means the “discharge of a pollutant” measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the “daily discharge” is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the “daily discharge” is calculated as the average measurement of the pollutant over the day.

DIRECT DISCHARGE means the “discharge of a pollutant.”

DIRECTOR means the Regional Administrator or the State Director, as the context requires, or an authorized representative. When there is no “approved State program,” and there is an EPA administered program, “Director” means the Regional Administrator. When there is an approved State program, “Director” normally means the State Director. In some circumstances, however, EPA retains the authority to take certain actions even when there is an approved State program. (For example, when EPA has issued an NPDES permit prior to the approval of a State program, EPA may retain jurisdiction over that permit after program approval, see § 123.1.) In such cases, the term “Director” means the Regional Administrator and not the State Director.

DISCHARGE (OF A POLLUTANT) means:

- Any addition of any pollutant or combination of pollutants to waters of the United States from any point source; or
- Any addition of any pollutant or combination of pollutants to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation.

This definition includes discharges into waters of the United States from: surface runoff which is collected or channelled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any “indirect discharger”.

DISCHARGE MONITORING REPORT means the EPA uniform national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by permittees. DMRs must be used by “approved States” as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the state agency name, address, logo, and other similar information, as appropriate, in place of EPA’s.

DRAFT PERMIT means a document prepared under § 124.6 indicating the Director’s tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a “permit.” A notice of intent to terminate a permit, and a notice of intent to deny a permit, as discussed in § 124.5, are types of “draft permits.” A denial of a request for modification, revocation and reissuance, or termination, as discussed in § 124.5, is not a “draft permit.” A “proposed permit” is not a “draft permit.”

EFFLUENT LIMITATION means any restriction imposed by the Director on quantities, discharge rates, and concentrations of “pollutants” which are “discharged” from “point sources” into “waters of the United States,” the waters of the “contiguous zone,” or the ocean.

EFFLUENT LIMITATIONS GUIDELINES means a regulation published by the Administrator under section 304(b) of the CWA to adopt or revise “effluent limitations.”

ENVIRONMENTAL PROTECTION AGENCY (EPA) means the United States Environmental Protection Agency.

FACILITY or ACTIVITY means any NPDES “point source” or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

GENERAL PERMIT means an NPDES “permit” issued under § 122.28 authorizing a category of discharges under the CWA within a geographical area.

HAZARDOUS SUBSTANCE means any substance designated under 40 CFR part 116 pursuant to section 311 of the CWA.

INDIAN COUNTRY (or INDAN LANDS) means:

- All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation;
- All dependent Indian communities with the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a state; and
- All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.

INDIAN TRIBE means any Indian Tribe, band, group, or community recognized by the Secretary of the Interior and exercising governmental authority over a Federal Indian reservation.

INDIRECT DISCHARGE means a nondomestic discharger introducing “pollutants” to a “publicly owned treatment works.”

FORM 2A—GLOSSARY CONTINUED

LARGE MUNICIPAL SEPARATE STORM SEWER SYSTEM (defined at § 122.26(b)(4)) means all municipal separate storm sewers that are either:

- (i) Located in an incorporated place with a population of 250,000 or more as determined by the 1990 Decennial Census by the Bureau of the Census (Appendix F of 40 CFR 122); or
- (ii) Located in the counties listed in appendix H of 40 CFR 122, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties; or
- (iii) Owned or operated by a municipality other than those described in paragraphs (i) or (ii) and that are designated by the Director as part of the large or medium municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under paragraphs (i) or (ii). In making this determination the Director may consider the following factors:
 - (A) Physical interconnections between the municipal separate storm sewers;
 - (B) The location of discharges from the designated municipal separate storm sewer relative to discharges from municipal separate storm sewers described in paragraph (i);
 - (C) The quantity and nature of pollutants discharged to waters of the United States;
 - (D) The nature of the receiving waters; and
 - (E) Other relevant factors; or
- (iv) The Director may, upon petition, designate as a large municipal separate storm sewer system, municipal separate storm sewers located within the boundaries of a region defined by a storm water management regional authority based on a jurisdictional, watershed, or other appropriate basis that includes one or more of the systems described in paragraphs (i), (ii), (iii).

LOG SORTING AND LOG STORAGE FACILITIES (defined at § 122.27) means facilities whose discharges result from the holding of unprocessed wood, for example, logs or roundwood with bark or after removal of bark held in self-contained bodies of water (mill ponds or log ponds) or stored on land where water is applied intentionally on the logs (wet decking). (See 40 CFR 429, subpart I, including the effluent limitations guidelines.)

MAJOR FACILITY means any NPDES “facility or activity” classified as such by the Regional Administrator, or, in the case of “approved State programs,” the Regional Administrator in conjunction with the State Director.

MAXIMUM DAILY DISCHARGE LIMITATION means the highest allowable “daily discharge.”

MEDIUM MUNICIPAL SEPARATE STORM SEWER SYSTEM (defined at § 122.26(b)(7)) means all municipal separate storm sewers that are either:

- (i) Located in an incorporated place with a population of 100,000 or more but less than 250,000, as determined by the 1990 Decennial Census by the Bureau of the Census (appendix G of 40 CFR 122); or
- (ii) Located in the counties listed in appendix I of 40 CFR 122, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties; or
- (iii) Owned or operated by a municipality other than those described in paragraph (i) or (ii) and that are designated by the Director as part of the large or medium municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under paragraph (i) or (ii). In making this determination the Director may consider the following factors:
 - (A) Physical interconnections between the municipal separate storm sewers;
 - (B) The location of discharges from the designated municipal separate storm sewer relative to discharges from municipal separate storm sewers described in paragraph (i);
 - (C) The quantity and nature of pollutants discharged to waters of the United States;
 - (D) The nature of the receiving waters; or
 - (E) Other relevant factors; or
- (iv) The Director may, upon petition, designate as a medium municipal separate storm sewer system, municipal separate storm sewers located within the boundaries of a region defined by a storm water management regional authority based on a jurisdictional, watershed, or other appropriate basis that includes one or more of the systems described in paragraphs (i), (ii), (iii) of this section.

FORM 2A—GLOSSARY CONTINUED

MUNICIPALITY means a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA.

MUNICIPAL SEPARATE STORM SEWER (defined at § 122.26(b)(8)) means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States.
- Designed or used for collecting or conveying stormwater.
- Which is not a combined sewer; and
- Which is not part of a POTW as defined at 40 CFR 122.2.

MUNICIPAL SLUDGE (*see sewage sludge*)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the CWA. The term includes an “approved program.”

NEW DISCHARGER means any building, structure, facility, or installation:

- From which there is or may be a “discharge of pollutants;”
- That did not commence the “discharge of pollutants” at a particular “site” prior to August 13, 1979;
- Which is not a “new source;” and
- Which has never received a finally effective NPDES permit for discharges at that “site.”

This definition includes an “indirect discharger” which commences discharging into “waters of the United States” after August 13, 1979. It also means any existing mobile point source (other than an offshore or coastal oil and gas exploratory drilling rig or a coastal oil and gas developmental drilling rig) such as a seafood processing rig, seafood processing vessel, or aggregate plant, that begins discharging at a “site” for which it does not have a permit; and any offshore or coastal mobile oil and gas exploratory drilling rig or coastal mobile oil and gas developmental drilling rig that commences the discharge of pollutants after August 13, 1979, at a “site” under EPA’s permitting jurisdiction for which it is not covered by an individual or general permit and which is located in an area determined by the Regional Administrator in the issuance of a final permit to be an area of biological concern. In determining whether an area is an area of biological concern, the Regional Administrator shall consider the factors specified in 40 CFR 125.122(a)(1) through (10).

An offshore or coastal mobile exploratory drilling rig or coastal mobile developmental drilling rig will be considered a “new discharger” only for the duration of its discharge in an area of biological concern.

NEW SOURCE means any building, structure, facility, or installation from which there is or may be a “discharge of pollutants,” the construction of which commenced:

- After promulgation of standards of performance under section 306 of the CWA which are applicable to such source, or
- After proposal of standards of performance in accordance with section 306 of the CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal.

OWNER OR OPERATOR means the owner or operator of any “facility or activity” subject to regulation under the NPDES program.

PERMIT means an authorization, license, or equivalent control document issued by EPA or an “approved State” to implement the requirements of this part and parts 123 and 124. “Permit” includes an NPDES “general permit” (§ 122.28). Permit does not include any permit which has not yet been the subject of final agency action, such as a “draft permit” or a “proposed permit.”

PESTICIDE DISCHARGES TO WATERS OF THE UNITED STATES FROM PESTICIDE APPLICATION means the application of biological pesticides, and the application of chemical pesticides that leave a residue, from point sources to waters of the United States. In the context of this definition of pesticide discharges to waters of the United States from pesticide application, this does not include agricultural storm water discharges and return flows from irrigated agriculture, which are excluded by law (33 U.S.C. 1342(l); 33 U.S.C. 1362(14)).

PESTICIDE RESIDUE for the purpose of determining whether a NPDES permit is needed for discharges to waters of the United States from pesticide application, means that portion of a pesticide application that is discharged from a point source to waters of the United States and no longer provides pesticidal benefits. It also includes any degradates of the pesticide.

FORM 2A—GLOSSARY CONTINUED

POINT SOURCE means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff. (See § 122.3).

POLLUTANT means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 *et seq.*)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean:

- Sewage from vessels; or
- Water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well used either to facilitate production or for disposal purposes is approved by authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources. Note: Radioactive materials covered by the Atomic Energy Act are those encompassed in its definition of source, byproduct, or special nuclear materials. Examples of materials not covered include radium and accelerator-produced isotopes. See *Train v. Colorado Public Interest Research Group, Inc.*, 426 U.S. 1 (1976).

PRIMARY INDUSTRY CATEGORY means any industry category listed in the NRDC settlement agreement (*Natural Resources Defense Council et al. v. Train*, 8 E.R.C. 2120 (D.D.C. 1976), modified 12 E.R.C. 1833 (D.D.C. 1979)); also listed in appendix A of part 122.

PRIVATELY OWNED TREATMENT WORKS means any device or system which is (1) used to treat wastes from any facility whose operator is not the operator of the treatment works and (2) not a "POTW."

PROCESS WASTEWATER means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

PROPOSED PERMIT means a state NPDES "permit" prepared after the close of the public comment period (and, when applicable, any public hearing and administrative appeals) which is sent to EPA for review before final issuance by the State. A "proposed permit" is not a "draft permit."

PUBLICLY OWNED TREATMENT WORKS or **POTW** (defined at § 403.3) means a treatment works as defined by CWA Section 212, which is owned by a state or municipality (as defined by CWA Section 502(4)). This definition includes any devices or systems used in the storage, treatment, recycling, and reclamation) of municipal sewage or industrial wastes of a liquid nature. This definition also includes sewers, pipes, and other conveyances only if they convey wastewater to a POTW. The term also means the municipality as defined in CWA Section 502(4), which has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

REGIONAL ADMINISTRATOR means the Regional Administrator of the appropriate Regional Office of the Environmental Protection Agency or the authorized representative of the Regional Administrator.

ROCK CRUSHING AND GRAVEL WASHING FACILITIES (defined at § 122.27) means facilities which process crushed and broken stone, gravel, and riprap (See 40 CFR 436, subpart B, including the effluent limitations guidelines).

SCHEDULE OF COMPLIANCE means a schedule of remedial measures included in a "permit", including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with the CWA and regulations.

SECONDARY INDUSTRY CATEGORY means any industry category which is not a primary industry category.

SEWAGE FROM VESSELS means human body wastes and the wastes from toilets and other receptacles intended to receive or retain body wastes that are discharged from vessels and regulated under section 312 of the CWA, except that with respect to commercial vessels on the Great Lakes this term includes graywater. For the purposes of this definition, "graywater" means galley, bath, and shower water.

SEWAGE SLUDGE means any solid, semi-solid, or liquid residue removed during the treatment of municipal waste water or domestic sewage. Sewage sludge includes, but is not limited to, solids removed during primary, secondary, or advanced waste water treatment, scum, septage, portable toilet pumpings, type III marine sanitation device pumpings (33 CFR 159), and sewage sludge products. Sewage sludge does not include grit or screenings, or ash generated during the incineration of sewage sludge.

SILVICULTURAL POINT SOURCE (defined at § 122.27) means any discernible, confined, and discrete conveyance related to rock crushing, gravel washing, log sorting, or log storage facilities which are operated in connection with silvicultural activities and from which pollutants are discharged into waters of the United States. This term does not include non-point source silvicultural activities such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or road construction and maintenance from which there is natural runoff. However, some of these activities (such as stream crossing for roads) may involve point source discharges of dredged or fill material which may require a CWA Section 404 permit (see 33 CFR 209.120 and part 233).

FORM 2A—GLOSSARY CONTINUED

SITE means the land or water area where any “facility or activity” is physically located or conducted, including adjacent land used in connection with the facility or activity.

SLUDGE-ONLY FACILITY means any “treatment works treating domestic sewage” whose methods of sewage sludge use or disposal are subject to regulations promulgated pursuant to section 405(d) of the CWA and is required to obtain a permit under § 122.1(b)(2).

STANDARDS FOR SEWAGE SLUDGE USE OR DISPOSAL means the regulations promulgated pursuant to section 405(d) of the CWA which govern minimum requirements for sludge quality, management practices, and monitoring and reporting applicable to sewage sludge or the use or disposal of sewage sludge by any person.

STATE means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Commonwealth of the Northern Mariana Islands, the Trust Territory of the Pacific Islands, or an Indian Tribe as defined in these regulations which meets the requirements of § 123.31 of this chapter.

STATE DIRECTOR means the chief administrative officer of any State or interstate agency operating an “approved program,” or the delegated representative of the State Director. If responsibility is divided among two or more State or interstate agencies, “State Director” means the chief administrative officer of the State or interstate agency authorized to perform the particular procedure or function to which reference is made.

STORMWATER (or **STORM WATER**) (defined at § 122.26(b)(13)) means stormwater runoff, snow melt runoff, and surface runoff and drainage.

STORMWATER DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY (defined at § 122.26(b)(14)) means the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program under this part 122. For the categories of industries identified in this section, the term includes, but is not limited to, stormwater discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at 40 CFR 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. For the purposes of this paragraph, material handling activities include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with stormwater drained from the above described areas. Industrial facilities (including industrial facilities that are federally, State, or municipally owned or operated that meet the description of the facilities listed in paragraphs 1 through 14 below) include those facilities designated under the provisions of 40 CFR 122.26(a)(1)(v). The following categories of facilities are considered to be engaging in “industrial activity” for purposes of 40 CFR 122.26(b)(14):

1. Facilities subject to stormwater effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR Subchapter N (except facilities with toxic pollutant effluent standards which are exempted under paragraph 11 below);
2. Facilities classified as Standard Industrial Classification 24, Industry Group 241 that are rock crushing, gravel washing, log sorting, or log storage facilities operated in connection with silvicultural activities defined in 40 CFR 122.27(b)(2)–(3) and Industry Groups 242 through 249; 26 (except 265 and 267), 28 (except 283), 29, 311, 32 (except 323), 33, 3441, 373; (not included are all other types of silvicultural facilities);
3. Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry) including active or inactive mining operations (except for areas of coal mining operations no longer meeting the definition of a reclamation area under 40 CFR 434.11(1) because the performance bond issued to the facility by the appropriate SMCRA authority has been released, or except for areas of non-coal mining operations which have been released from applicable State or Federal reclamation requirements after December 17, 1990) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge stormwater contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations; (inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/operator; inactive mining sites do not include sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials, nor sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim);
4. Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under subtitle C of RCRA;
5. Landfills, land application sites, and open dumps that receive or have received any industrial wastes (waste that is received from any of the facilities described under this subsection) including those that are subject to regulation under subtitle D of RCRA;
6. Facilities involved in the recycling of materials, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards, including but limited to those classified as Standard Industrial Classification 5015 and 5093;

FORM 2A—GLOSSARY CONTINUED

7. Steam electric power generating facilities, including coal handling sites;
8. Transportation facilities classified as Standard Industrial Classifications 40, 41, 42 (except 4221–25), 43, 44, 45, and 5171 which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or which are otherwise identified under paragraphs 1–7 or 9–11 are associated with industrial activity;
9. Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 mgd or more, or required to have an approved pretreatment program under 40 CFR 403. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with section 405 of the CWA;
10. Construction activity including clearing, grading and excavation, except operations that result in the disturbance of less than five acres of total land area. Construction activity also includes the disturbance of less than five acres of total land area that is a part of a larger common plan of development or sale if the larger common plan will ultimately disturb five acres or more;
11. Facilities under Standard Industrial Classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 285, 30, 31 (except 311), 323, 34 (except 3441), 35, 36, 37 (except 373), 38, 39, and 4221–25.

TOXIC POLLUTANT means any pollutant listed as toxic under section 307(a)(1) or, in the case of “sludge use or disposal practices,” any pollutant identified in regulations implementing section 405(d) of the CWA.


TREATMENT WORKS TREATING DOMESTIC SEWAGE (TWTDS) means a POTW or any other sewage sludge or waste water treatment devices or systems, regardless of ownership (including federal facilities), used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated for the disposal of sewage sludge. This definition does not include septic tanks or similar devices. For purposes of this definition, “domestic sewage” includes waste and waste water from humans or household operations that are discharged to or otherwise enter a treatment works. In States where there is no approved State sludge management program under section 405(f) of the CWA, the Regional Administrator may designate any person subject to the standards for sewage sludge use and disposal in 40 CFR 503 as a “treatment works treating domestic sewage,” where he or she finds that there is a potential for adverse effects on public health and the environment from poor sludge quality or poor sludge handling, use or disposal practices, or where he or she finds that such designation is necessary to ensure that such person is in compliance with 40 CFR 503.

UPSET (defined at § 122.41(n)) means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

VARIANCE means any mechanism or provision under section 301 or 316 of the CWA or under 40 CFR 125, or in the applicable “effluent limitations guidelines” which allows modification to or waiver of the generally applicable effluent limitation requirements or time deadlines of the CWA. This includes provisions which allow the establishment of alternative limitations based on fundamentally different factors or on sections 301(c), 301(g), 301(h), 301(i), or 316(a) of the CWA.

WATERS OF THE UNITED STATES as defined at § 122.2.

WHOLE EFFLUENT TOXICITY (WET) means the aggregate toxic effect of an effluent measured directly by a toxicity test.

EPA Identification Number		NPDES Permit Number		Facility Name		Form Approved 03/05/19 OMB No. 2040-0004		
Form 2A NPDES		U.S. Environmental Protection Agency Application for NPDES Permit to Discharge Wastewater NEW AND EXISTING PUBLICLY OWNED TREATMENT WORKS						
SECTION 1. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS (40 CFR 122.21(j)(1) and (9))								
Facility Information	1.1	Facility name						
		Mailing address (street or P.O. box)						
		City or town			State		ZIP code	
		Contact name (first and last)		Title		Phone number		Email address
		Location address (street, route number, or other specific identifier) <input type="checkbox"/> Same as mailing address						
		City or town			State		ZIP code	
Applicant Information	1.2	Is this application for a facility that has yet to commence discharge?						
		<input type="checkbox"/> Yes → See instructions on data submission requirements for new dischargers. <input type="checkbox"/> No						
		1.3 Is applicant different from entity listed under Item 1.1 above?						
		<input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 1.4.						
		Applicant name						
		Applicant address (street or P.O. box)						
Applicant Information	1.3	City or town			State		ZIP code	
		Contact name (first and last)		Title		Phone number		Email address
		1.4 Is the applicant the facility's owner, operator, or both? (Check only one response.)						
		<input type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Both						
		1.5 To which entity should the NPDES permitting authority send correspondence? (Check only one response.)						
		<input type="checkbox"/> Facility <input type="checkbox"/> Applicant <input type="checkbox"/> Facility and applicant (they are one and the same)						
Existing Environmental Permits	1.6	Indicate below any existing environmental permits. (Check all that apply and print or type the corresponding permit number for each.)						
		Existing Environmental Permits						
		<input type="checkbox"/> NPDES (discharges to surface water)		<input type="checkbox"/> RCRA (hazardous waste)		<input type="checkbox"/> UIC (underground injection control)		
		<input type="checkbox"/> PSD (air emissions)		<input type="checkbox"/> Nonattainment program (CAA)		<input type="checkbox"/> NESHAPs (CAA)		
		<input type="checkbox"/> Ocean dumping (MPRSA)		<input type="checkbox"/> Dredge or fill (CWA Section 404)		<input type="checkbox"/> Other (specify)		

Form Approved 03/05/19
OMB No. 2040-0004

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
---------------------------	---------------------	---------------	---

Outfalls and Other Discharge or Disposal Methods	Outfalls Other Than to Waters of the United States				
	1.12	Does the POTW discharge wastewater to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the United States? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 1.14.			
	1.13	Provide the location of each surface impoundment and associated discharge information in the table below.			
		Surface Impoundment Location and Discharge Data			
		Location	Average Daily Volume Discharged to Surface Impoundment	Continuous or Intermittent (check one)	
			gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	
			gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	
			gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	
	1.14	Is wastewater applied to land? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 1.16.			
	1.15	Provide the land application site and discharge data requested below.			
		Land Application Site and Discharge Data			
		Location	Size	Average Daily Volume Applied	Continuous or Intermittent (check one)
			acres	gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
			acres	gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
			acres	gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
1.16	Is effluent transported to another facility for treatment prior to discharge? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 1.21.				
1.17	Describe the means by which the effluent is transported (e.g., tank truck, pipe). 				
1.18	Is the effluent transported by a party other than the applicant? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 1.20.				
1.19	Provide information on the transporter below.				
	Transporter Data				
	Entity name	Mailing address (street or P.O. box)			
	City or town	State	ZIP code		
	Contact name (first and last)	Title			
	Phone number	Email address			

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
---------------------------	---------------------	---------------	---

Outfalls and Other Discharge or Disposal Methods Continued	1.20	In the table below, indicate the name, address, contact information, NPDES number, and average daily flow rate of the receiving facility.		
	Receiving Facility Data			
	Facility name	Mailing address (street or P.O. box)		
	City or town	State ZIP code		
	Contact name (first and last)	Title		
	Phone number	Email address		
	NPDES number of receiving facility (if any) <input type="checkbox"/> None	Average daily flow rate mgd		
	1.21	Is the wastewater disposed of in a manner other than those already mentioned in Items 1.14 through 1.21 that do not have outlets to waters of the United States (e.g., underground percolation, underground injection)? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 1.23.		
	1.22	Provide information in the table below on these other disposal methods.		
	Information on Other Disposal Methods			
Disposal Method Description	Location of Disposal Site	Size of Disposal Site	Annual Average Daily Discharge Volume	Continuous or Intermittent (check one)
		acres	gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
		acres	gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
		acres	gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent

Variance Requests	1.23	Do you intend to request or renew one or more of the variances authorized at 40 CFR 122.21(n)? (Check all that apply. Consult with your NPDES permitting authority to determine what information needs to be submitted and when.) <input type="checkbox"/> Discharges into marine waters (CWA Section 301(h)) <input type="checkbox"/> Water quality related effluent limitation (CWA Section 302(b)(2)) <input type="checkbox"/> Not applicable
-------------------	------	--

Contractor Information	1.24	Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 2.		
	1.25	Provide location and contact information for each contractor in addition to a description of the contractor's operational and maintenance responsibilities.		
	Contractor Information			
		Contractor 1	Contractor 2	Contractor 3
	Contractor name (company name)			
	Mailing address (street or P.O. box)			
	City, state, and ZIP code			
	Contact name (first and last)			
	Phone number			
	Email address			
Operational and maintenance responsibilities of contractor				

EPA Identification Number		NPDES Permit Number		Facility Name		Form Approved 03/05/19 OMB No. 2040-0004	
SECTION 2. ADDITIONAL INFORMATION (40 CFR 122.21(j)(1) and (2))							
Design Flow	Outfalls to Waters of the United States						
	2.1	Does the treatment works have a design flow greater than or equal to 0.1 mgd? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 3.					
Inflow and Infiltration	2.2	Provide the treatment works' current average daily volume of inflow and infiltration.				Average Daily Volume of Inflow and Infiltration	
						gpd	
Topographic Map	2.3	Have you attached a topographic map to this application that contains all the required information? (See instructions for specific requirements.) <input type="checkbox"/> Yes <input type="checkbox"/> No					
	2.4	Have you attached a process flow diagram or schematic to this application that contains all the required information? (See instructions for specific requirements.) <input type="checkbox"/> Yes <input type="checkbox"/> No					
Scheduled Improvements and Schedules of Implementation	2.5	Are improvements to the facility scheduled? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 3.					
	Briefly list and describe the scheduled improvements.						
	1.						
	2.						
	3.						
	4.						
	2.6	Provide scheduled or actual dates of completion for improvements.					
	Scheduled or Actual Dates of Completion for Improvements						
		Scheduled Improvement (from above)	Affected Outfalls (list outfall number)	Begin Construction (MM/DD/YYYY)	End Construction (MM/DD/YYYY)	Begin Discharge (MM/DD/YYYY)	Attainment of Operational Level (MM/DD/YYYY)
		1.					
	2.						
	3.						
	4.						
2.7	Have appropriate permits/clearances concerning other federal/state requirements been obtained? Briefly explain your response. <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None required or applicable						
Explanation:							

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
---------------------------	---------------------	---------------	---

SECTION 3. INFORMATION ON EFFLUENT DISCHARGES (40 CFR 122.21(j)(3) to (5))

Description of Outfalls	3.1	Provide the following information for each outfall. (Attach additional sheets if you have more than three outfalls.)					
			Outfall Number _____	Outfall Number _____	Outfall Number _____		
	State						
	County						
	City or town						
	Distance from shore		ft.	ft.	ft.		
	Depth below surface		ft.	ft.	ft.		
	Average daily flow rate		mgd	mgd	mgd		
	Latitude	°	'	"	°	'	"
	Longitude	°	'	"	°	'	"
Seasonal or Periodic Discharge Data	3.2	Do any of the outfalls described under Item 3.1 have seasonal or periodic discharges? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 3.4.					
	3.3	If so, provide the following information for each applicable outfall.					
			Outfall Number _____	Outfall Number _____	Outfall Number _____		
	Number of times per year discharge occurs						
	Average duration of each discharge (specify units)						
	Average flow of each discharge		mgd	mgd	mgd		
Diffuser Type	3.4	Are any of the outfalls listed under Item 3.1 equipped with a diffuser? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 3.6.					
	3.5	Briefly describe the diffuser type at each applicable outfall.					
Waters of the U.S.			Outfall Number _____	Outfall Number _____	Outfall Number _____		
3.6	Does the treatment works discharge or plan to discharge wastewater to waters of the United States from one or more discharge points? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 6.						

EPA Identification Number		NPDES Permit Number		Facility Name		Form Approved 03/05/19 OMB No. 2040-0004	
Receiving Water Description	3.7	Provide the receiving water and related information (if known) for each outfall.					
			Outfall Number _____	Outfall Number _____	Outfall Number _____		
	Receiving water name						
	Name of watershed, river, or stream system						
	U.S. Soil Conservation Service 14-digit watershed code						
	Name of state management/river basin						
	U.S. Geological Survey 8-digit hydrologic cataloging unit code						
	Critical low flow (acute)		cfs		cfs		cfs
	Critical low flow (chronic)		cfs		cfs		cfs
	Total hardness at critical low flow		mg/L of CaCO ₃		mg/L of CaCO ₃		mg/L of CaCO ₃
Treatment Description	3.8	Provide the following information describing the treatment provided for discharges from each outfall.					
			Outfall Number _____	Outfall Number _____	Outfall Number _____		
	Highest Level of Treatment (check all that apply per outfall)	<input type="checkbox"/> Primary <input type="checkbox"/> Equivalent to secondary <input type="checkbox"/> Secondary <input type="checkbox"/> Advanced <input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> Primary <input type="checkbox"/> Equivalent to secondary <input type="checkbox"/> Secondary <input type="checkbox"/> Advanced <input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> Primary <input type="checkbox"/> Equivalent to secondary <input type="checkbox"/> Secondary <input type="checkbox"/> Advanced <input type="checkbox"/> Other (specify) _____			
	Design Removal Rates by Outfall						
	BOD ₅ or CBOD ₅		%		%		%
	TSS		%		%		%
	Phosphorus	<input type="checkbox"/> Not applicable %	<input type="checkbox"/> Not applicable %	<input type="checkbox"/> Not applicable %			
	Nitrogen	<input type="checkbox"/> Not applicable %	<input type="checkbox"/> Not applicable %	<input type="checkbox"/> Not applicable %			
	Other (specify) _____	<input type="checkbox"/> Not applicable %	<input type="checkbox"/> Not applicable %	<input type="checkbox"/> Not applicable %			

EPA Identification Number		NPDES Permit Number		Facility Name		Form Approved 03/05/19 OMB No. 2040-0004	
Treatment Description Continued	3.9	Describe the type of disinfection used for the effluent from each outfall in the table below. If disinfection varies by season, describe below.					
			Outfall Number _____	Outfall Number _____	Outfall Number _____		
	Disinfection type						
	Seasons used						
	Dechlorination used?	<input type="checkbox"/> Not applicable <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Not applicable <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Not applicable <input type="checkbox"/> Yes <input type="checkbox"/> No			
Effluent Testing Data	3.10	Have you completed monitoring for all Table A parameters and attached the results to the application package? <input type="checkbox"/> Yes <input type="checkbox"/> No					
	3.11	Have you conducted any WET tests during the 4.5 years prior to the date of the application on any of the facility's discharges or on any receiving water near the discharge points? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 3.13.					
	3.12	Indicate the number of acute and chronic WET tests conducted since the last permit reissuance of the facility's discharges by outfall number or of the receiving water near the discharge points.					
			Outfall Number _____	Outfall Number _____	Outfall Number _____		
		Acute	Chronic	Acute	Chronic	Acute	Chronic
	Number of tests of discharge water						
	Number of tests of receiving water						
	3.13	Does the treatment works have a design flow greater than or equal to 0.1 mgd? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 3.16.					
	3.14	Does the POTW use chlorine for disinfection, use chlorine elsewhere in the treatment process, or otherwise have reasonable potential to discharge chlorine in its effluent? <input type="checkbox"/> Yes → Complete Table B, including chlorine. <input type="checkbox"/> No → Complete Table B, omitting chlorine.					
	3.15	Have you completed monitoring for all applicable Table B pollutants and attached the results to this application package? <input type="checkbox"/> Yes <input type="checkbox"/> No					
3.16	Does one or more of the following conditions apply? <ul style="list-style-type: none"> The facility has a design flow greater than or equal to 1 mgd. The POTW has an approved pretreatment program or is required to develop such a program. The NPDES permitting authority has informed the POTW that it must sample for the parameters in Table C, must sample other additional parameters (Table D), or submit the results of WET tests for acute or chronic toxicity for each of its discharge outfalls (Table E). <input type="checkbox"/> Yes → Complete Tables C, D, and E as applicable. <input type="checkbox"/> No → SKIP to Section 4.						
3.17	Have you completed monitoring for all applicable Table C pollutants and attached the results to this application package? <input type="checkbox"/> Yes <input type="checkbox"/> No						
3.18	Have you completed monitoring for all applicable Table D pollutants required by your NPDES permitting authority and attached the results to this application package? <input type="checkbox"/> Yes <input type="checkbox"/> No additional sampling required by NPDES permitting authority.						

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
---------------------------	---------------------	---------------	---

Effluent Testing Data Continued	3.19	Has the POTW conducted either (1) minimum of four quarterly WET tests for one year preceding this permit application or (2) at least four annual WET tests in the past 4.5 years? <input type="checkbox"/> Yes <input type="checkbox"/> No → Complete tests and Table E and SKIP to Item 3.26.				
	3.20	Have you previously submitted the results of the above tests to your NPDES permitting authority? <input type="checkbox"/> Yes <input type="checkbox"/> No → Provide results in Table E and SKIP to Item 3.26.				
	3.21	Indicate the dates the data were submitted to your NPDES permitting authority and provide a summary of the results. <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="width: 45%; text-align: center;">Date(s) Submitted (MM/DD/YYYY)</th> <th style="width: 55%; text-align: center;">Summary of Results</th> </tr> <tr> <td style="height: 80px;"></td> <td></td> </tr> </table>	Date(s) Submitted (MM/DD/YYYY)	Summary of Results		
	Date(s) Submitted (MM/DD/YYYY)	Summary of Results				
	3.22	Regardless of how you provided your WET testing data to the NPDES permitting authority, did any of the tests result in toxicity? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 3.26.				
	3.23	Describe the cause(s) of the toxicity:				
	3.24	Has the treatment works conducted a toxicity reduction evaluation? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 3.26.				
3.25	Provide details of any toxicity reduction evaluations conducted.					
3.26	Have you completed Table E for all applicable outfalls and attached the results to the application package? <input type="checkbox"/> Yes <input type="checkbox"/> Not applicable because previously submitted information to the NPDES permitting authority.					
SECTION 4. INDUSTRIAL DISCHARGES AND HAZARDOUS WASTES (40 CFR 122.21(j)(6) and (7))						
Industrial Discharges and Hazardous Wastes	4.1	Does the POTW receive discharges from SIUs or NSCIUs? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 4.7.				
	4.2	Indicate the number of SIUs and NSCIUs that discharge to the POTW. <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="width: 50%; text-align: center;">Number of SIUs</th> <th style="width: 50%; text-align: center;">Number of NSCIUs</th> </tr> <tr> <td style="height: 30px;"></td> <td></td> </tr> </table>	Number of SIUs	Number of NSCIUs		
	Number of SIUs	Number of NSCIUs				
	4.3	Does the POTW have an approved pretreatment program? <input type="checkbox"/> Yes <input type="checkbox"/> No				
	4.4	Have you submitted either of the following to the NPDES permitting authority that contains information substantially identical to that required in Table F: (1) a pretreatment program annual report submitted within one year of the application or (2) a pretreatment program? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 4.6.				
4.5	Identify the title and date of the annual report or pretreatment program referenced in Item 4.4. SKIP to Item 4.7.					
4.6	Have you completed and attached Table F to this application package? <input type="checkbox"/> Yes <input type="checkbox"/> No					

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004	
---------------------------	---------------------	---------------	---	--

Industrial Discharges and Hazardous Wastes Continued	4.7	Does the POTW receive, or has it been notified that it will receive, by truck, rail, or dedicated pipe, any wastes that are regulated as RCRA hazardous wastes pursuant to 40 CFR 261? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 4.9.			
	4.8	If yes, provide the following information:			
		Hazardous Waste Number	Waste Transport Method (check all that apply)	Annual Amount of Waste Received	Units
			<input type="checkbox"/> Truck <input type="checkbox"/> Rail <input type="checkbox"/> Dedicated pipe <input type="checkbox"/> Other (specify) _____		
			<input type="checkbox"/> Truck <input type="checkbox"/> Rail <input type="checkbox"/> Dedicated pipe <input type="checkbox"/> Other (specify) _____		
			<input type="checkbox"/> Truck <input type="checkbox"/> Rail <input type="checkbox"/> Dedicated pipe <input type="checkbox"/> Other (specify) _____		
	4.9	Does the POTW receive, or has it been notified that it will receive, wastewaters that originate from remedial activities, including those undertaken pursuant to CERCLA and Sections 3004(7) or 3008(h) of RCRA? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 5.			
	4.10	Does the POTW receive (or expect to receive) less than 15 kilograms per month of non-acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(e)? <input type="checkbox"/> Yes → SKIP to Section 5. <input type="checkbox"/> No			
4.11	Have you reported the following information in an attachment to this application: identification and description of the site(s) or facility(ies) at which the wastewater originates; the identities of the wastewater's hazardous constituents; and the extent of treatment, if any, the wastewater receives or will receive before entering the POTW? <input type="checkbox"/> Yes <input type="checkbox"/> No				
SECTION 5. COMBINED SEWER OVERFLOWS (40 CFR 122.21(j)(8))					
CSO Map and Diagram	5.1	Does the treatment works have a combined sewer system? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 6.			
	5.2	Have you attached a CSO system map to this application? (See instructions for map requirements.) <input type="checkbox"/> Yes <input type="checkbox"/> No			
	5.3	Have you attached a CSO system diagram to this application? (See instructions for diagram requirements.) <input type="checkbox"/> Yes <input type="checkbox"/> No			

EPA Identification Number		NPDES Permit Number		Facility Name		Form Approved 03/05/19 OMB No. 2040-0004	
CSO Outfall Description	5.4	For each CSO outfall, provide the following information. (Attach additional sheets as necessary.)					
		CSO Outfall Number ____		CSO Outfall Number ____		CSO Outfall Number ____	
	City or town						
	State and ZIP code						
	County						
	Latitude	° ' "		° ' "		° ' "	
	Longitude	° ' "		° ' "		° ' "	
	Distance from shore	ft.		ft.		ft.	
	Depth below surface	ft.		ft.		ft.	
CSO Monitoring	5.5	Did the POTW monitor any of the following items in the past year for its CSO outfalls?					
		CSO Outfall Number ____		CSO Outfall Number ____		CSO Outfall Number ____	
	Rainfall	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
	CSO flow volume	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
	CSO pollutant concentrations	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Receiving water quality	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
	CSO frequency	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Number of storm events	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
CSO Events in Past Year	5.6	Provide the following information for each of your CSO outfalls.					
		CSO Outfall Number ____		CSO Outfall Number ____		CSO Outfall Number ____	
	Number of CSO events in the past year	events		events		events	
	Average duration per event	hours <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated		hours <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated		hours <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated	
	Average volume per event	million gallons <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated		million gallons <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated		million gallons <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated	
	Minimum rainfall causing a CSO event in last year	inches of rainfall <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated		inches of rainfall <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated		inches of rainfall <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated	

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
---------------------------	---------------------	---------------	---

CSO Receiving Waters	5.7	Provide the information in the table below for each of your CSO outfalls.		
		CSO Outfall Number ____	CSO Outfall Number ____	CSO Outfall Number ____
	Receiving water name			
	Name of watershed/ stream system			
	U.S. Soil Conservation Service 14-digit watershed code (if known)	<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown
	Name of state management/river basin			
	U.S. Geological Survey 8-Digit Hydrologic Unit Code (if known)	<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown
	Description of known water quality impacts on receiving stream by CSO (see instructions for examples)			

SECTION 6. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))			
Checklist and Certification Statement	6.1	In Column 1 below, mark the sections of Form 2A that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to provide attachments.	
		Column 1	Column 2
	<input type="checkbox"/> Section 1: Basic Application Information for All Applicants	<input type="checkbox"/> w/ variance request(s)	<input type="checkbox"/> w/ additional attachments
	<input type="checkbox"/> Section 2: Additional Information	<input type="checkbox"/> w/ topographic map <input type="checkbox"/> w/ additional attachments	<input type="checkbox"/> w/ process flow diagram
	<input type="checkbox"/> Section 3: Information on Effluent Discharges	<input type="checkbox"/> w/ Table A <input type="checkbox"/> w/ Table B <input type="checkbox"/> w/ Table C	<input type="checkbox"/> w/ Table D <input type="checkbox"/> w/ Table E <input type="checkbox"/> w/ additional attachments
	<input type="checkbox"/> Section 4: Industrial Discharges and Hazardous Wastes	<input type="checkbox"/> w/ SIU and NSCIU attachments <input type="checkbox"/> w/ additional attachments	<input type="checkbox"/> w/ Table F
	<input type="checkbox"/> Section 5: Combined Sewer Overflows	<input type="checkbox"/> w/ CSO map <input type="checkbox"/> w/ CSO system diagram	<input type="checkbox"/> w/ additional attachments
	<input type="checkbox"/> Section 6: Checklist and Certification Statement	<input type="checkbox"/> w/ attachments	

6.2	Certification Statement <i>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</i>	
	Name (print or type first and last name)	Official title
	Signature 	Date signed 8/24/2020

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
---------------------------	---------------------	---------------	----------------

Form Approved 03/05/19
OMB No. 2040-0004

TABLE A. EFFLUENT PARAMETERS FOR ALL POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method ¹	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Biochemical oxygen demand <input type="checkbox"/> BOD ₅ or <input type="checkbox"/> CBOD ₅ (report one)							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Fecal coliform							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Design flow rate							
pH (minimum)							
pH (maximum)							
Temperature (winter)							
Temperature (summer)							
Total suspended solids (TSS)							<input type="checkbox"/> ML <input type="checkbox"/> MDL

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

This page intentionally left blank.

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
---------------------------	---------------------	---------------	----------------

TABLE B. EFFLUENT PARAMETERS FOR ALL POTWS WITH A FLOW EQUAL TO OR GREATER THAN 0.1 MGD

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method ¹	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Ammonia (as N)							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Chlorine (total residual, TRC) ²							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Dissolved oxygen							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Nitrate/nitrite							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Kjeldahl nitrogen							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Oil and grease							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Phosphorus							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Total dissolved solids							<input type="checkbox"/> ML <input type="checkbox"/> MDL

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

² Facilities that do not use chlorine for disinfection, do not use chlorine elsewhere in the treatment process, and have no reasonable potential to discharge chlorine in their effluent are not required to report data for chlorine.

This page intentionally left blank.

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
---------------------------	---------------------	---------------	----------------

Form Approved 03/05/19
OMB No. 2040-0004

TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method ¹	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Metals, Cyanide, and Total Phenols							
Hardness (as CaCO ₃)							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Antimony, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Arsenic, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Beryllium, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Cadmium, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Chromium, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Copper, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Lead, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Mercury, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Nickel, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Selenium, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Silver, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Thallium, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Zinc, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Cyanide							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Total phenolic compounds							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Volatile Organic Compounds							
Acrolein							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Acrylonitrile							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Benzene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Bromoform							<input type="checkbox"/> ML <input type="checkbox"/> MDL

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
---------------------------	---------------------	---------------	----------------

Form Approved 03/05/19
OMB No. 2040-0004

TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method ¹	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Carbon tetrachloride							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Chlorobenzene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Chlorodibromomethane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Chloroethane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2-chloroethylvinyl ether							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Chloroform							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Dichlorobromomethane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,1-dichloroethane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,2-dichloroethane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
trans-1,2-dichloroethylene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,1-dichloroethylene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,2-dichloropropane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,3-dichloropropylene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Ethylbenzene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Methyl bromide							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Methyl chloride							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Methylene chloride							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,1,2,2-tetrachloroethane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Tetrachloroethylene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Toluene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,1,1-trichloroethane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,1,2-trichloroethane							<input type="checkbox"/> ML <input type="checkbox"/> MDL

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
---------------------------	---------------------	---------------	----------------

Form Approved 03/05/19
OMB No. 2040-0004

TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method ¹	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Trichloroethylene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Vinyl chloride							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Acid-Extractable Compounds							
p-chloro-m-cresol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2-chlorophenol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2,4-dichlorophenol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2,4-dimethylphenol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
4,6-dinitro-o-cresol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2,4-dinitrophenol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2-nitrophenol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
4-nitrophenol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Pentachlorophenol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Phenol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2,4,6-trichlorophenol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Base-Neutral Compounds							
Acenaphthene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Acenaphthylene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Anthracene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Benzidine							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Benzo(a)anthracene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Benzo(a)pyrene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
3,4-benzofluoranthene							<input type="checkbox"/> ML <input type="checkbox"/> MDL

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
---------------------------	---------------------	---------------	----------------

Form Approved 03/05/19
OMB No. 2040-0004

TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method ¹	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Benzo(ghi)perylene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Benzo(k)fluoranthene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Bis (2-chloroethoxy) methane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Bis (2-chloroethyl) ether							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Bis (2-chloroisopropyl) ether							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Bis (2-ethylhexyl) phthalate							<input type="checkbox"/> ML <input type="checkbox"/> MDL
4-bromophenyl phenyl ether							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Butyl benzyl phthalate							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2-chloronaphthalene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
4-chlorophenyl phenyl ether							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Chrysene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
di-n-butyl phthalate							<input type="checkbox"/> ML <input type="checkbox"/> MDL
di-n-octyl phthalate							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Dibenzo(a,h)anthracene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,2-dichlorobenzene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,3-dichlorobenzene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,4-dichlorobenzene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
3,3-dichlorobenzidine							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Diethyl phthalate							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Dimethyl phthalate							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2,4-dinitrotoluene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2,6-dinitrotoluene							<input type="checkbox"/> ML <input type="checkbox"/> MDL

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
---------------------------	---------------------	---------------	----------------

Form Approved 03/05/19
OMB No. 2040-0004

TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method ¹	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
1,2-diphenylhydrazine							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Fluoranthene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Fluorene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Hexachlorobenzene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Hexachlorobutadiene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Hexachlorocyclo-pentadiene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Hexachloroethane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Indeno(1,2,3-cd)pyrene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Isophorone							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Naphthalene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Nitrobenzene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
N-nitrosodi-n-propylamine							<input type="checkbox"/> ML <input type="checkbox"/> MDL
N-nitrosodimethylamine							<input type="checkbox"/> ML <input type="checkbox"/> MDL
N-nitrosodiphenylamine							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Phenanthrene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Pyrene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,2,4-trichlorobenzene							<input type="checkbox"/> ML <input type="checkbox"/> MDL

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

This page intentionally left blank.

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
---------------------------	---------------------	---------------	----------------

TABLE D. ADDITIONAL POLLUTANTS AS REQUIRED BY NPDES PERMITTING AUTHORITY

Pollutant (list)	Maximum Daily Discharge		Average Daily Discharge			Analytical Method ¹	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
<input type="checkbox"/> No additional sampling is required by NPDES permitting authority.							
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

This page intentionally left blank.

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
---------------------------	---------------------	---------------	----------------

Form Approved 03/05/19
OMB No. 2040-0004

TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for one whole effluent toxicity sample. Copy the table to report additional test results.

Test Information

	Test Number _____	Test Number _____	Test Number _____
Test species			
Age at initiation of test			
Outfall number			
Date sample collected			
Date test started			
Duration			

Toxicity Test Methods

Test method number			
Manual title			
Edition number and year of publication			
Page number(s)			

Sample Type

Check one:	<input type="checkbox"/> Grab <input type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input type="checkbox"/> 24-hour composite
------------	---	---	---

Sample Location

Check one:	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before disinfection <input type="checkbox"/> After disinfection <input type="checkbox"/> After dechlorination
------------	--	--	--

Point in Treatment Process

Describe the point in the treatment process at which the sample was collected for each test.			
--	--	--	--

Toxicity Type

Indicate for each test whether the test was performed to assess acute or chronic toxicity, or both. (Check one response.)	<input type="checkbox"/> Acute <input type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input type="checkbox"/> Chronic <input type="checkbox"/> Both
---	---	---	---

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
---------------------------	---------------------	---------------	----------------

Form Approved 03/05/19
OMB No. 2040-0004

TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for one whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number _____	Test Number _____	Test Number _____
Test Type			
Indicate the type of test performed. (Check one response.)	<input type="checkbox"/> Static <input type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input type="checkbox"/> Static <input type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input type="checkbox"/> Static <input type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through
Source of Dilution Water			
Indicate the source of dilution water. (Check one response.)	<input type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water
If laboratory water, specify type.			
If receiving water, specify source.			
Type of Dilution Water			
Indicate the type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.	<input type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)
Percentage Effluent Used			
Specify the percentage effluent used for all concentrations in the test series.			
Parameters Tested			
Check the parameters tested.	<input type="checkbox"/> pH <input type="checkbox"/> Salinity <input type="checkbox"/> Temperature	<input type="checkbox"/> Ammonia <input type="checkbox"/> Dissolved oxygen	<input type="checkbox"/> pH <input type="checkbox"/> Salinity <input type="checkbox"/> Temperature
			<input type="checkbox"/> Ammonia <input type="checkbox"/> Dissolved oxygen
			<input type="checkbox"/> pH <input type="checkbox"/> Salinity <input type="checkbox"/> Temperature
Acute Test Results			
Percent survival in 100% effluent			
LC ₅₀			
95% confidence interval			
Control percent survival			

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
---------------------------	---------------------	---------------	----------------

Form Approved 03/05/19
OMB No. 2040-0004

TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for one whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number _____	Test Number _____	Test Number _____
Acute Test Results Continued			
Other (describe)			
Chronic Test Results			
NOEC	%	%	%
IC ₂₅	%	%	%
Control percent survival	%	%	%
Other (describe)			
Quality Control/Quality Assurance			
Is reference toxicant data available?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Was reference toxicant test within acceptable bounds?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
What date was reference toxicant test run (MM/DD/YYYY)?			
Other (describe)			

This page intentionally left blank.

EPA Identification Number	NPDES Permit Number	Facility Name
---------------------------	---------------------	---------------

TABLE F. INDUSTRIAL DISCHARGE INFORMATION

Response space is provided for three SIUs. Copy the table to report information for additional SIUs.

	SIU ____	SIU ____	SIU ____
Name of SIU			
Mailing address (street or P.O. box)			
City, state, and ZIP code			
Description of all industrial processes that affect or contribute to the discharge.			
List the principal products and raw materials that affect or contribute to the SIU's discharge.			
Indicate the average daily volume of wastewater discharged by the SIU.	gpd	gpd	gpd
How much of the average daily volume is attributable to process flow?	gpd	gpd	gpd
How much of the average daily volume is attributable to non-process flow?	gpd	gpd	gpd
Is the SIU subject to local limits?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is the SIU subject to categorical standards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

EPA Identification Number

NPDES Permit Number

Facility Name

Form Approved 03/05/19

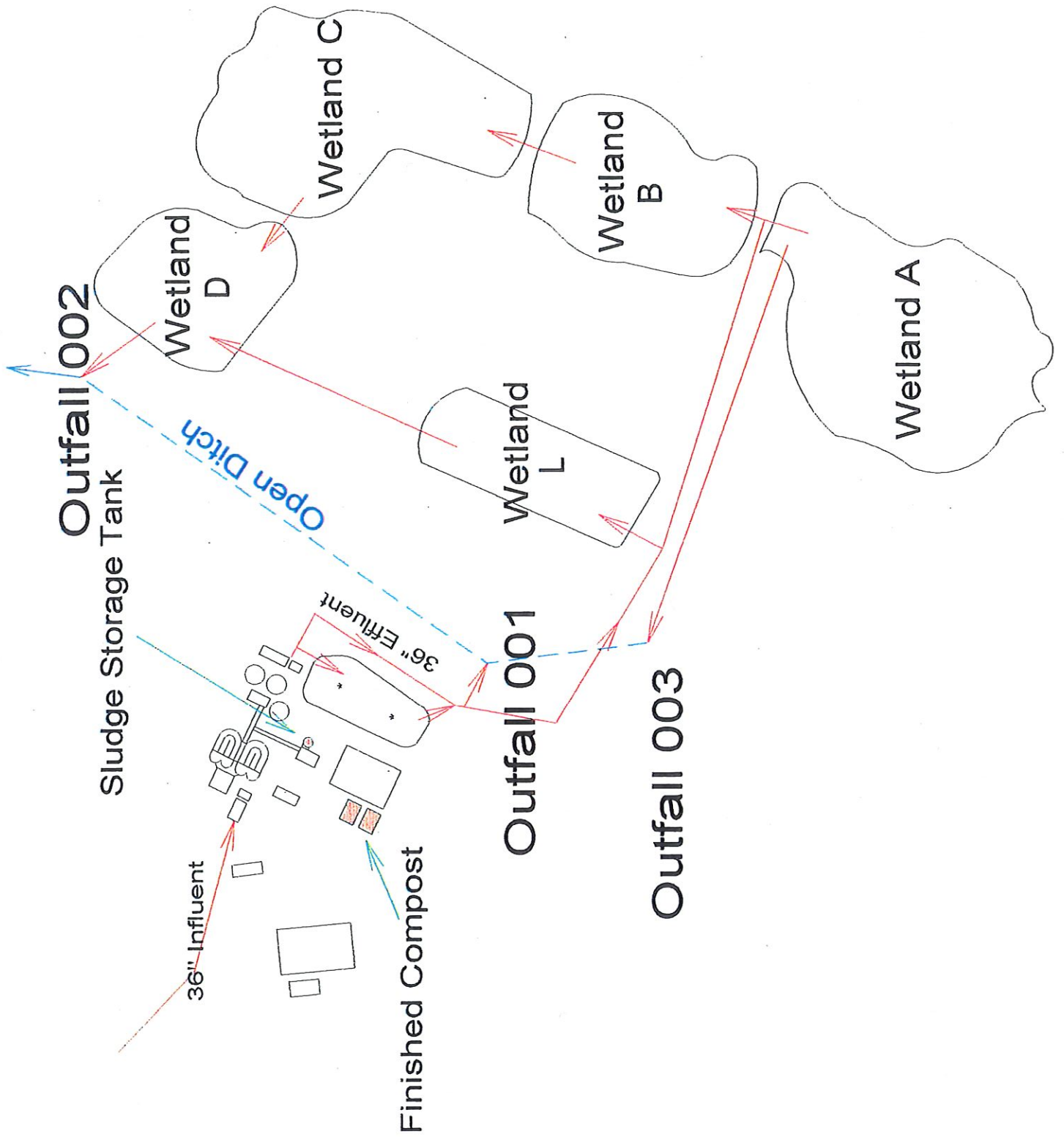
OMB No. 2040-0004

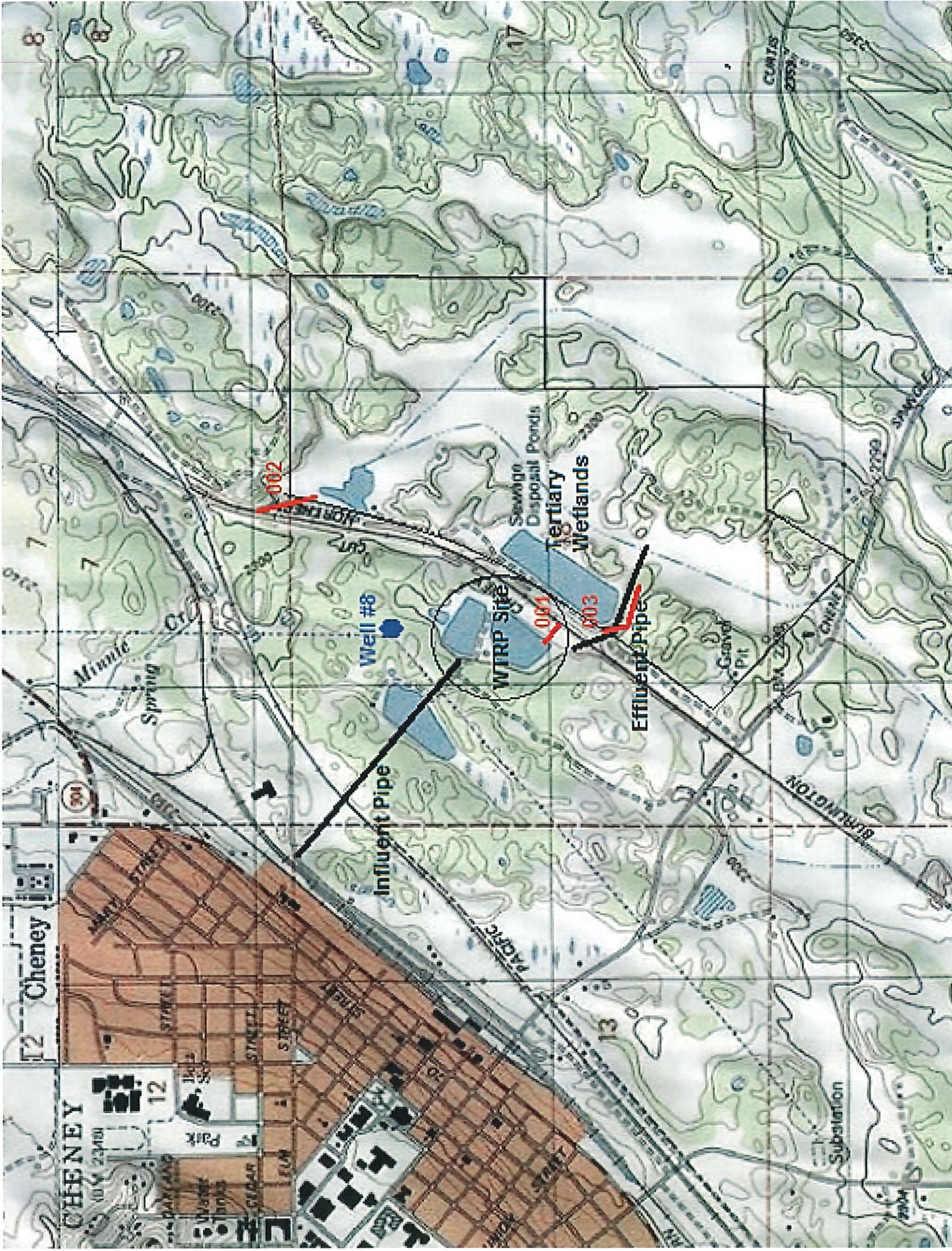
TABLE F. INDUSTRIAL DISCHARGE INFORMATION

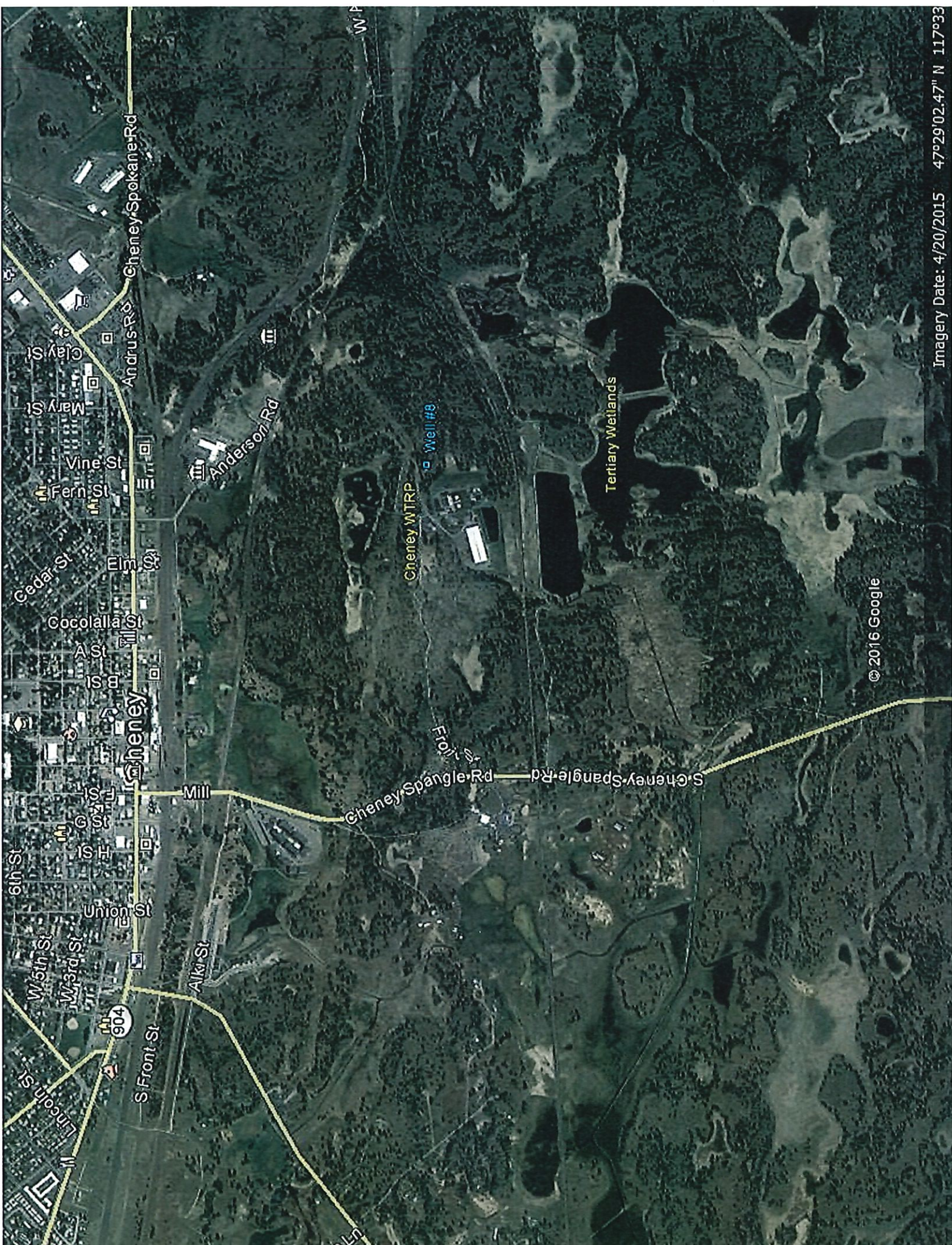
Response space is provided for three SIUs. Copy the table to report information for additional SIUs.

	SIU ____	SIU ____	SIU ____
Under what categories and subcategories is the SIU subject?			
Has the POTW experienced problems (e.g., upsets, pass-through interferences) in the past 4.5 years that are attributable to the SIU?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
If yes, describe.			









© 2016 Google

DISINFECTION



SLUDGE STORAGE AND DEWATERING



EXIST WETLAND
TREATMENT

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: CITY OF CHENEY
Address: 119 ANDERSON RD.
CHENEY, WA 99004
Attn: MIKE LAMBERT

Batch #: 190305046
Project Name: SEC EFF MARCH 2019

Analytical Results Report

Sample Number	190305046-001	Sampling Date	3/4/2019	Date/Time Received	3/5/2019 12:14 PM
Client Sample ID	SEC EFF	Sampling Time		Extraction Date	
Matrix	Water	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Antimony	ND	mg/L	0.001	3/15/2019 2:27:00 PM	BAG	EPA 200.8	
Arsenic	ND	mg/L	0.001	3/13/2019 3:20:00 PM	BAG	EPA 200.8	
Beryllium	ND	mg/L	0.001	3/13/2019 3:20:00 PM	BAG	EPA 200.8	
Cadmium	ND	mg/L	0.001	3/13/2019 3:20:00 PM	BAG	EPA 200.8	
Chromium	ND	mg/L	0.001	3/13/2019 3:20:00 PM	BAG	EPA 200.8	
Copper	0.00526	mg/L	0.001	3/13/2019 3:20:00 PM	BAG	EPA 200.8	
Lead	ND	mg/L	0.001	3/13/2019 3:20:00 PM	BAG	EPA 200.8	
Nickel	ND	mg/L	0.001	3/13/2019 3:20:00 PM	BAG	EPA 200.8	
NO3/N+NO2/N	17.7	mg/L	2	3/15/2019 10:51:00 AM	TLM	SM 4500 NO3F	
Selenium	ND	mg/L	0.001	3/13/2019 3:20:00 PM	BAG	EPA 200.8	
1,2,4-Trichlorobenzene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
1,2-Dichlorobenzene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
1,2-Diphenyl hydrazine	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
1,3-Dichlorobenzene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
1,4-Dichlorobenzene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
1-Methylnaphthalene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
2,3,4,6-Tetrachlorophenol	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
2,3,5,6-Tetrachlorophenol	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
2,4,5-Trichlorophenol	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
2,4,6-Trichlorophenol	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
2,4-Dichlorophenol	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
2,4-Dimethylphenol	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
2,4-Dinitrophenol	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
2,4-Dinitrotoluene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
2,6-Dinitrotoluene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
2-Chloronaphthalene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
2-Chlorophenol	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
2-Methylnaphthalene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
2-Methylphenol	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
2-Nitroaniline	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
2-Nitrophenol	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
3,3'-Dichlorobenzidine	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
3+4-Methylphenol	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
3-Methylcholanthrene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; NV:ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert10095; FL(NELAP): E871099

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: CITY OF CHENEY
Address: 119 ANDERSON RD.
CHENEY, WA 99004
Attn: MIKE LAMBERT

Batch #: 190305046
Project Name: SEC EFF MARCH 2019

Analytical Results Report

Sample Number	190305046-001	Sampling Date	3/4/2019	Date/Time Received	3/5/2019 12:14 PM
Client Sample ID	SEC EFF	Sampling Time		Extraction Date	
Matrix	Water	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
3-Nitroaniline	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
4,6-Dinitro-2-methylphenol	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
4-Bromophenyl-phenylether	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
4-Chloro-3-methylphenol	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
4-Chloroaniline	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
4-Chlorophenyl-phenylether	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
4-Nitroaniline	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
4-Nitrophenol	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Acenaphthene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Acenaphthylene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Aniline	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Anthracene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Benzidine	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Benzo(ghi)perylene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Benzo(j)fluoranthene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Benzo(r,s,t)pentaphene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Benzo[a]anthracene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Benzo[a]pyrene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Benzo[b]fluoranthene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Benzo[k]fluoranthene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Benzyl alcohol	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
bis(2-Chloroethoxy)methane	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
bis(2-Chloroethyl)ether	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
bis(2-chloroisopropyl)ether	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
bis(2-Ethylhexyl)phthalate	1.98	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Butylbenzylphthalate	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Carbazole	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Chrysene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Dibenz(a,e)pyrene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Dibenz(a,h)acridine	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Dibenz(a,h)pyrene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Dibenz(a,j)acridine	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Dibenz[a,h]anthracene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Dibenzofuran	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Diethylphthalate	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP):E87893; ID:ID00013; MT:CE0028; NM: ID00013; NV:ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:CE0095; FL(NELAP): E871099

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: CITY OF CHENEY
Address: 119 ANDERSON RD.
CHENEY, WA 99004
Attn: MIKE LAMBERT

Batch #: 190305046
Project Name: SEC EFF MARCH 2019

Analytical Results Report

Sample Number	190305046-001	Sampling Date	3/4/2019	Date/Time Received	3/5/2019 12:14 PM
Client Sample ID	SEC EFF	Sampling Time		Extraction Date	
Matrix	Water	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Dimethylphthalate	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Di-n-butylphthalate	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Di-n-octylphthalate	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Fluoranthene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Fluorene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Hexachlorobenzene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Hexachlorobutadiene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Hexachlorocyclopentadiene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Hexachloroethane	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Indeno[1,2,3-cd]pyrene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Isophorone	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Naphthalene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Nitrobenzene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Nitrosodimethylamine	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
n-Nitroso-di-n-propylamine	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
n-Nitrosodiphenylamine	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Pentachlorophenol	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Perylene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Phenanthrene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Phenol	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Pyrene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Pyridine	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Silver	ND	mg/L	0.001	3/13/2019 3:20:00 PM	BAG	EPA 200.8	
Thallium	ND	mg/L	0.001	3/13/2019 3:20:00 PM	BAG	EPA 200.8	
TKN	<0.5	mg/L	0.5	3/8/2019 2:53:00 PM	TLM	SM4500NORGC	
Zinc	0.0365	mg/L	0.001	3/13/2019 3:20:00 PM	BAG	EPA 200.8	

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: CITY OF CHENEY
Address: 119 ANDERSON RD.
CHENEY, WA 99004
Attn: MIKE LAMBERT

Batch #: 190305046
Project Name: SEC EFF MARCH 2019

Analytical Results Report

Sample Number	190305046-001	Sampling Date	3/4/2019	Date/Time Received	3/5/2019 12:14 PM
Client Sample ID	SEC EFF	Sampling Time		Extraction Date	
Matrix	Water	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Dimethylphthalate	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Di-n-butylphthalate	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Di-n-octylphthalate	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Fluoranthene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Fluorene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Hexachlorobenzene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Hexachlorobutadiene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Hexachlorocyclopentadiene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Hexachloroethane	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Indeno[1,2,3-cd]pyrene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Isophorone	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Naphthalene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Nitrobenzene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Nitrosodimethylamine	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
n-Nitroso-di-n-propylamine	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
n-Nitrosodiphenylamine	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Pentachlorophenol	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Perylene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Phenanthrene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Phenol	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Pyrene	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Pyridine	ND	ug/L	0.5	3/11/2019 6:19:00 PM	HSW	EPA 625.1	
Silver	ND	mg/L	0.001	3/13/2019 3:20:00 PM	BAG	EPA 200.8	
Thallium	ND	mg/L	0.001	3/13/2019 3:20:00 PM	BAG	EPA 200.8	
TKN	<0.5	mg/L	0.5	3/8/2019 2:53:00 PM	TLM	SM4500NORGC	
Zinc	0.0365	mg/L	0.001	3/13/2019 3:20:00 PM	BAG	EPA 200.8	

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: CITY OF CHENEY
Address: 119 ANDERSON RD.
CHENEY, WA 99004
Attn: MIKE LAMBERT

Batch #: 190305046
Project Name: SEC EFF MARCH 2019

Analytical Results Report

Sample Number	190305046-001	Sampling Date	3/4/2019	Date/Time Received	3/5/2019 12:14 PM
Client Sample ID	SEC EFF	Sampling Time		Extraction Date	
Matrix	Water	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
-----------	--------	-------	-----	---------------	---------	--------	-----------

Surrogate Data

Sample Number	190305046-001			
Surrogate Standard	Method	Percent Recovery	Control Limits	
2,4,6-Tribromophenol	EPA 625.1	116.6	49-125	
2-Fluorobiphenyl	EPA 625.1	95.6	12-116	
2-Fluorophenol	EPA 625.1	42.0	10-139	
Nitrobenzene-d5	EPA 625.1	89.2	49-118	
Phenol-d5	EPA 625.1	78.4	27-154	
Terphenyl-d14	EPA 625.1	102.0	20-137	

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: CITY OF CHENEY
Address: 119 ANDERSON RD.
CHENEY, WA 99004
Attn: MIKE LAMBERT

Batch #: 190305046
Project Name: SEC EFF MARCH 2019

Analytical Results Report

Sample Number	190305046-002	Sampling Date	3/5/2019	Date/Time Received	3/5/2019 12:14 PM
Client Sample ID	SEC EFF	Sampling Time	8:34 AM	Extraction Date	
Matrix	Water	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1,1,1-Trichloroethane	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1,1,2-Trichloroethane	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1,1-Dichloroethane	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1,1-Dichloroethene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1,1-dichloropropene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1,2,3-Trichlorobenzene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1,2,3-Trichloropropane	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1,2,4-Trichlorobenzene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1,2,4-Trimethylbenzene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1,2-Dibromo-3-chloropropane(DBCP)	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1,2-Dibromoethane (EDB)	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1,2-Dichlorobenzene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1,2-Dichloroethane	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1,2-Dichloropropane	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1,3,5-Trimethylbenzene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1,3-Dichlorobenzene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1,3-Dichloropropane	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1,4-Dichlorobenzene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
1-Methylnaphthalene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
2,2-Dichloropropane	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
2-Chloroethyl vinyl ether	ND	ug/L	2.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
2-Chlorotoluene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
2-hexanone	ND	ug/L	2.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
4-Chlorotoluene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Acetone	3.14	ug/L	2.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Acrolein	ND	ug/L	2.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Acrylonitrile	ND	ug/L	2.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Benzene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Bromobenzene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Bromochloromethane	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Bromodichloromethane	1.77	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Bromoform	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Bromomethane	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; NV:ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

Tuesday, March 19, 2019

Page 5 of 10

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: CITY OF CHENEY
Address: 119 ANDERSON RD.
CHENEY, WA 99004
Attn: MIKE LAMBERT

Batch #: 190305046
Project Name: SEC EFF MARCH 2019

Analytical Results Report

Sample Number	190305046-002	Sampling Date	3/5/2019	Date/Time Received	3/5/2019 12:14 PM
Client Sample ID	SEC EFF	Sampling Time	8:34 AM	Extraction Date	
Matrix	Water	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Carbon disulfide	ND	ug/L	2.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Carbon Tetrachloride	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Chlorobenzene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Chloroethane	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Chloroform	6.52	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Chloromethane	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
cis-1,2-dichloroethene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
cis-1,3-Dichloropropene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Dibromochloromethane	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Dibromomethane	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Dichlorodifluoromethane	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Ethylbenzene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Hexachlorobutadiene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Iodomethane	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Isopropylbenzene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
m+p-Xylene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Methyl ethyl ketone (MEK)	ND	ug/L	2.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Methyl isobutyl ketone (MIBK)	ND	ug/L	2.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Methylene chloride	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
methyl-t-butyl ether (MTBE)	ND	ug/L	2.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Naphthalene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
n-Butylbenzene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Nitrobenzene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
n-Propylbenzene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
o-Xylene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
p-isopropyltoluene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
sec-Butylbenzene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Styrene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
tert-Butylbenzene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Tetrachloroethene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Toluene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Total Xylene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
trans-1,2-Dichloroethene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
trans-1,3-Dichloropropene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
trans-1-4-Dichloro-2-butene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; NV:ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: CITY OF CHENEY
Address: 119 ANDERSON RD.
CHENEY, WA 99004
Attn: MIKE LAMBERT

Batch #: 190305046
Project Name: SEC EFF MARCH 2019

Analytical Results Report

Sample Number	190305046-002	Sampling Date	3/5/2019	Date/Time Received	3/5/2019 12:14 PM
Client Sample ID	SEC EFF	Sampling Time	8:34 AM	Extraction Date	
Matrix	Water	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Trichloroethene	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Trichlorofluoromethane	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Vinyl acetate	ND	ug/L	2.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Vinyl Chloride	ND	ug/L	0.5	3/12/2019 4:04:00 PM	ARY	EPA 624	
Alkalinity	142	mg CaCO3/L	5	3/14/2019 11:15:00 AM	NDE	SM2320B	
Cyanide	ND	mg/L	0.01	3/18/2019 11:56:00 AM	TLM	EPA 335.4	
Hexane extractable material (HEM)	ND	mg/L	1	3/12/2019 4:00:00 PM	RPR	EPA 1664A	
Hardness	158	mg CaCO3/L	2	3/8/2019 3:30:00 PM	NDE	EPA 130.2	
Mercury-CVAFS	ND	ug/L	0.01	3/12/2019 4:11:00 PM	ETL	EPA 245.7	
Phenolics	ND	mg/L	0.25	3/14/2019 2:00:00 PM	BKP	EPA 420.1	D1

Surrogate Data

Sample Number	190305046-002	Method	Percent Recovery	Control Limits
Surrogate Standard				
1,2-Dichlorobenzene-d4	EPA 624	101.6	70-130	
4-Bromofluorobenzene	EPA 624	98.4	70-130	
Toluene-d8	EPA 624	99.2	70-130	

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: CITY OF CHENEY
Address: 119 ANDERSON RD.
CHENEY, WA 99004
Attn: MIKE LAMBERT

Batch #: 190305046
Project Name: SEC EFF MARCH 2019

Analytical Results Report

Sample Number	190305046-003	Sampling Date	3/5/2019	Date/Time Received	3/5/2019 12:14 PM
Client Sample ID	TRIP BLANK	Sampling Time		Extraction Date	
Matrix	Water	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1,1,1-Trichloroethane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1,1,2-Trichloroethane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1,1-Dichloroethane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1,1-Dichloroethene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1,1-dichloropropene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1,2,3-Trichlorobenzene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1,2,3-Trichloropropane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1,2,4-Trichlorobenzene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1,2,4-Trimethylbenzene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1,2-Dibromo-3-chloropropane(DBCP)	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1,2-Dibromoethane (EDB)	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1,2-Dichlorobenzene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1,2-Dichloroethane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1,2-Dichloropropane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1,3,5-Trimethylbenzene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1,3-Dichlorobenzene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1,3-Dichloropropane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1,4-Dichlorobenzene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
1-Methylnaphthalene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
2,2-Dichloropropane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
2-Chloroethyl vinyl ether	ND	ug/L	2.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
2-Chlorotoluene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
2-hexanone	ND	ug/L	2.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
4-Chlorotoluene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Acetone	2.63	ug/L	2.5	3/12/2019 4:36:00 PM	ARY	EPA 624	W
Acrolein	ND	ug/L	2.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Acrylonitrile	ND	ug/L	2.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Benzene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Bromobenzene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Bromochloromethane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Bromodichloromethane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Bromoform	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Bromomethane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: CITY OF CHENEY
Address: 119 ANDERSON RD.
CHENEY, WA 99004
Attn: MIKE LAMBERT

Batch #: 190305046
Project Name: SEC EFF MARCH 2019

Analytical Results Report

Sample Number	190305046-003	Sampling Date	3/5/2019	Date/Time Received	3/5/2019 12:14 PM
Client Sample ID	TRIP BLANK	Sampling Time		Extraction Date	
Matrix	Water	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Carbon disulfide	ND	ug/L	2.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Carbon Tetrachloride	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Chlorobenzene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Chloroethane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Chloroform	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Chloromethane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
cis-1,2-dichloroethene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
cis-1,3-Dichloropropene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Dibromochloromethane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Dibromomethane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Dichlorodifluoromethane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Ethylbenzene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Hexachlorobutadiene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Iodomethane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Isopropylbenzene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
m+p-Xylene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Methyl ethyl ketone (MEK)	ND	ug/L	2.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Methyl isobutyl ketone (MIBK)	ND	ug/L	2.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Methylene chloride	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
methyl-t-butyl ether (MTBE)	ND	ug/L	2.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Naphthalene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
n-Butylbenzene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Nitrobenzene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
n-Propylbenzene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
o-Xylene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
p-isopropyltoluene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
sec-Butylbenzene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Styrene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
tert-Butylbenzene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Tetrachloroethene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Toluene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Total Xylene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
trans-1,2-Dichloroethene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
trans-1,3-Dichloropropene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
trans-1-4-Dichloro-2-butene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: CITY OF CHENEY
Address: 119 ANDERSON RD.
CHENEY, WA 99004
Attn: MIKE LAMBERT

Batch #: 190305046
Project Name: SEC EFF MARCH 2019

Analytical Results Report

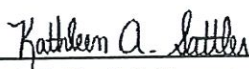
Sample Number	190305046-003	Sampling Date	3/5/2019	Date/Time Received	3/5/2019 12:14 PM
Client Sample ID	TRIP BLANK	Sampling Time		Extraction Date	
Matrix	Water	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Trichloroethene	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Trichlorofluoromethane	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Vinyl acetate	ND	ug/L	2.5	3/12/2019 4:36:00 PM	ARY	EPA 624	
Vinyl Chloride	ND	ug/L	0.5	3/12/2019 4:36:00 PM	ARY	EPA 624	

Surrogate Data

Sample Number	190305046-003			
Surrogate Standard	Method	Percent Recovery	Control Limits	
1,2-Dichlorobenzene-d4	EPA 624	100.8	70-130	
4-Bromofluorobenzene	EPA 624	97.6	70-130	
Toluene-d8	EPA 624	100.0	70-130	

Authorized Signature


Kathleen A. Sattler, Lab Manager

D1 Sample required dilution due to matrix
MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit
W Analyte was detected in both the sample and the associated trip blank.

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Login Report

Customer Name: CITY OF CHENEY

119 ANDERSON RD.

CHENEY

WA

99004

Order ID: 190305046

Order Date: 3/5/2019

Contact Name: MIKE LAMBERT

Project Name: SEC EFF MARCH 2019

Comment: 625/FOG/HG/PHENOLICS SUBCONTRACTED TO ANATEK-M

Sample #: 190305046-001 **Customer Sample #:** SEC EFF

Recv'd: ☒ **Matrix:** Water **Collector:** MIKE LAMBERT

Date Collected: 3/4/2019

Quantity: 4 **Date Received:** 3/5/2019 12:14:00 PM

Time Collected:

Comment:

Test	Lab	Method	Due Date	Priority
NITRATE+NITRITE FIA	S	SM 4500 NO3F	3/15/2019	<u>Normal (~10 Days)</u>
SEMIVOLATILES 625 WAPP	M	EPA 625.1	3/15/2019	<u>Normal (~10 Days)</u>
TKN-SPO	S	SM4500NORGC	3/15/2019	<u>Normal (~10 Days)</u>
Antimony	S	EPA 200.8	3/15/2019	<u>Normal (~10 Days)</u>
Arsenic	S	EPA 200.8	3/15/2019	<u>Normal (~10 Days)</u>
BERYLLIUM	S	EPA 200.8	3/15/2019	<u>Normal (~10 Days)</u>
Cadmium	S	EPA 200.8	3/15/2019	<u>Normal (~10 Days)</u>
Chromium	S	EPA 200.8	3/15/2019	<u>Normal (~10 Days)</u>
Copper	S	EPA 200.8	3/15/2019	<u>Normal (~10 Days)</u>
Lead	S	EPA 200.8	3/15/2019	<u>Normal (~10 Days)</u>
Nickel	S	EPA 200.8	3/15/2019	<u>Normal (~10 Days)</u>
Priority Pollutant Metals	S	N/A	3/15/2019	<u>Normal (~10 Days)</u>
Selenium	S	EPA 200.8	3/15/2019	<u>Normal (~10 Days)</u>
Silver	S	EPA 200.8	3/15/2019	<u>Normal (~10 Days)</u>
Thallium	S	EPA 200.8	3/15/2019	<u>Normal (~10 Days)</u>
Zinc	S	EPA 200.8	3/15/2019	<u>Normal (~10 Days)</u>

Customer Name: CITY OF CHENEY
119 ANDERSON RD.
CHENEY

WA 99004

Order ID: 190305046
Order Date: 3/5/2019

Contact Name: MIKE LAMBERT

Project Name: SEC EFF MARCH 2019

Comment: 625/FOG/HG/PHENOLICS SUBCONTRACTED TO ANATEK-M

Sample #: 190305046-002 Customer Sample #: SEC EFF

Recv'd: ☒ Matrix: Water Collector: MIKE LAMBERT Date Collected: 3/5/2019
Quantity: 8 Date Received: 3/5/2019 12:14:00 PM Time Collected: 8:34 AM
Comment:

Test	Lab	Method	Due Date	Priority
624 VOLATILES IN WW	S	EPA 624	3/15/2019	<u>Normal (~10 Days)</u>
ALKALINITY	S	SM2320B	3/15/2019	<u>Normal (~10 Days)</u>
CYANIDE TOTAL EPA	S	EPA 335.4	3/15/2019	<u>Normal (~10 Days)</u>
FOG - HEM	M	EPA 1664A	3/15/2019	<u>Normal (~10 Days)</u>
HARDNESS EPA 130.2	S	EPA 130.2	3/15/2019	<u>Normal (~10 Days)</u>
MERCURY-CVAFS	M	EPA 245.7	3/15/2019	<u>Normal (~10 Days)</u>
PHENOLICS TOTAL	M	EPA 420.1	3/15/2019	<u>Normal (~10 Days)</u>

Sample #: 190305046-003 Customer Sample #: TRIP BLANK

Recv'd: ☒ Matrix: Water Collector: MIKE LAMBERT Date Collected: 3/5/2019
Quantity: 2 Date Received: 3/5/2019 12:14:00 PM Time Collected:
Comment:

Test	Lab	Method	Due Date	Priority
624 VOLATILES IN WW	S	EPA 624	3/15/2019	<u>Normal (~10 Days)</u>

SAMPLE CONDITION RECORD

Samples received in a cooler?	Yes
Samples received intact?	Yes
What is the temperature of the sample(s)? (°C)	1.0
Samples received with a COC?	Yes
Samples received within holding time?	Yes
Are all sample bottles properly preserved?	Yes
Are VOC samples free of headspace?	Yes
Is there a trip blank to accompany VOC samples?	Yes
Labels and chain agree?	Yes
Total number of containers?	12



CHEN	Last Due	3/15/2019
030305 046		
1st SAMP	3/4/2019	1st RCVD 3/5/2019
SEC EFF MARCH 2019		

1282 Alturas Drive, Moscow ID 83843 (208) 883-2839 FAX 882-9246
504 E Sprague Ste D, Spokane WA 99202 (509) 838-3999 FAX 338-4433

[illegible]



030305 046 CHEN Last Due 3/15/2019
1st SAMP 3/4/2019 1st RCVD 3/5/2019
SEC EFF MARCH 2019

Please refer to our normal times below:

<http://www.anateklabs.com/services/guidelines/reporting.asp>

*All rush order requests must be prior approved.

Normal _____
Next Day* _____
2nd Day* _____
Other* _____

_____ Phone _____
_____ Mail ☒ _____
_____ Fax _____
_____ Email ☒ _____

[illegible]



Environment Testing
TestAmerica

AQUATIC TOXICOLOGY REPORT

Project Name:

CITY OF CHENEY

Location:

CHENEY, WASHINGTON

Prepared by:

Eurofins TestAmerica - Corvallis

1100 NE Circle Boulevard, Suite 310
Corvallis, Oregon 97330
541-243-6137



Oregon Environmental Laboratory Accreditation Program #OR100022 (NELAP)
State of Washington DOE Environmental Laboratory Accreditation Program, Lab ID C556
California State Environmental Laboratory Accreditation Program, Certificate No.: 1726

Report Date: April 17, 2019

Released by: Brett Muckey

Lab I.D. No. B4282

CONTENTS

Section	Page
INTRODUCTION	3
OVERVIEW OF REGULATORY GUIDANCE	3
SUMMARY OF TEST RESULTS	5
ACRONYM DEFINITIONS	5
SAMPLE INFORMATION.....	6
METHODS AND MATERIALS	7
TEST METHODS	7
DEVIATIONS FROM PROTOCOLS	7
TEST DESIGN	7
DILUTION WATER	9
SAMPLE COLLECTION AND STORAGE	9
SAMPLE PREPARATION	9
DATA ANALYSIS	9
RESULTS AND DISCUSSION	10
ACUTE BIOASSAYS	10
CHRONIC BIOASSAYS	12
REFERENCE TOXICANT TESTS	14
APPENDIX A. RAW DATA SHEETS	
APPENDIX B. REFERENCE TOXICANT DATA SHEETS	
APPENDIX C. CHAIN OF CUSTODY	

LABORATORY CONTACT: Brett Muckey, Aquatic Toxicity Department Manager
brett.muckey@testamericainc.com (541) 243-0976

INTRODUCTION

Eurofins TestAmerica – Corvallis (ET-C) Aquatic Toxicology Laboratory conducted toxicity testing on sample(s) from the City of Cheney, Cheney, Washington.

Testing was initiated on: March 19, 2019

The test(s) were conducted using:

- the water flea (*Ceriodaphnia dubia*)
- the fathead minnow (*Pimephales promelas*)

OVERVIEW OF REGULATORY GUIDANCE

The following provides an overview and excerpts of applicable permit specifics, regulatory guidance, and other relevant information. This is intended only as a helpful guide, from a laboratory perspective, for understanding test outcomes. The final responsibility for interpretation of results remains with the client and/or regulatory agency.

The following guidance is taken from ET-C's reading of the NPDES permit for the City of Cheney, Cheney, Washington facility (permit #WA0020842, effective September 1, 2016, expires August 31, 2021).

Acute toxicity:

- *Testing When There Is No Permit Limit for Acute Toxicity:*
 - "Conduct acute toxicity testing on final effluent in March of 2018 prior to submission of application renewal."
 - "Conduct acute toxicity testing on a series of at least five concentrations of effluent, including 100% effluent and a control."
- The Permittee may choose to conduct a full dilution series test during compliance testing in order to determine dose response.
 - "The series of concentrations must include the acute critical effluent concentration (ACEC). The ACEC equals 100% effluent."

Chronic toxicity:

- *Testing When There Is No Permit Limit for Chronic Toxicity:*
 - "Conduct acute toxicity testing on final effluent in March of 2018 prior to submission of application renewal."
 - "Conduct chronic toxicity testing on a series of at least five concentrations of effluent and a control. This series of dilutions must include the acute critical effluent concentration (ACEC) and chronic critical effluent concentration (CCEC)."
 - Note: The CCEC level is not defined.
 - "Compare the ACEC to the control using hypothesis testing at the 0.05 level of significance ..."
- *Sampling and Reporting Requirements:*

- “The Permittee must collect grab samples for toxicity testing ... The Permittee must cool the samples to 0 - 6 degrees Celsius during collection and send them to the lab immediately upon completion. The lab must begin the toxicity testing as soon as possible but no later than 36 hours after sampling was completed.”
- “All toxicity tests must meet quality assurance criteria and test conditions specified in the most recent versions of the EPA methods listed in Subsection C and the Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If Ecology determines any test results to be invalid or anomalous, the Permittee must repeat the testing with freshly collected effluent.”
- “The Permittee must conduct whole effluent toxicity tests on an unmodified sample of final effluent.”

The following is taken from the WDOE guidance (WQ-R-95-80, Jun 2016 revision):

- “To reduce WET limit violations (and anomalous concentration-response relationships) due to statistical significance that is a Type I error [false positive], we lower alpha when differences in test organism response are small.”
- “Alpha will be lowered from 0.05 to 0.01 if a 10% difference in an acute test is significant or a 20% difference in a chronic test is significant.”

SUMMARY OF TEST RESULTS

Exhibits 1 and 2 provide a summary of the final test results.

EXHIBIT 1

Summary of Acute Test Results

Species	NOEC (%)	LOEC (%)	LC ₅₀ (%)	Was a statistically significant difference between control and ACEC shown?
<i>C. dubia</i>	100	> 100	> 100	No
<i>P. promelas</i>	100	> 100	> 100	No

Note: acronyms are as defined below.

From the NPDES permit - "The ACEC = 100%."

More detailed information is provided in the Results and Discussion section.

EXHIBIT 2

Summary of Chronic Test Results

Species	NOEC (%)	LOEC (%)	IC ₂₅ (%)	Was a statistically significant difference between control and ACEC shown?
<i>C. dubia</i>	100	> 100	> 100	No
<i>P. promelas</i>	100	> 100	> 100	No

Note: acronyms are as defined below.

From the NPDES permit - "Compare the ACEC to the control using hypothesis testing at the 0.05 level of significance ... [ACEC = 100%]."

More detailed information is provided in the Results and Discussion section.

ACRONYM DEFINITIONS (from EPA guidance):

NOEC = No Observed Effect Concentration: The highest test concentration that causes no observable adverse effects on the test organisms (i.e. no statistically significant reduction from the control).

LOEC = Low Observed Effect Concentration: The lowest test concentration that does cause an observable adverse effect on the test organisms (i.e. is statistically significant reduction from the control).

LC₅₀ = Lethal Concentration (50%): A point estimate of the test concentration that would cause death in 50 percent of the test population.

IC₂₅ = Inhibition Concentration (25%): A point estimate of the test concentration that would cause a 25 percent reduction of a non-quantal biological measurement (i.e. growth, reproduction, etc.) for the test population.

SAMPLE INFORMATION

Exhibit 3 provides a summary of the sample conditions as received.

EXHIBIT 3

Sample Conditions on Receipt

Sample ID		See Clarifier EFF		
ET-C SDG		B4282		
+ suffix		-01	-02	-03
Collection	- Date and Time	03/18/2019 11:43	03/20/2019 11:44	3/22/2019 11:46
Receipt	- Date and Time	03/19/2019 10:05	03/21/2019 10:30	3/23/2019 09:50
Temperature	(°C)	0.1	3.0	1.9
Dissolved Oxygen	(mg/L)	10.5	9.9	9.6
pH		7.1	7.3	7.3
Conductivity	(µS/cm)	735	683	658
Total Residual Chlorine	(mg/L)	0.02	0.02	0.02
Ammonia	(mg/L as NH ₃ -N)	< 0.10	< 0.10	< 0.10
Total Hardness	(mg/L as CaCO ₃)	170	170	180
Total Alkalinity	(mg/L as CaCO ₃)	145	147	145

METHODS AND MATERIALS

TEST METHODS

The acute test methods were performed according to: *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, USEPA Office of Water (2002), EPA-821-R-02-012.

The chronic test methods were performed according to: *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Fourth Edition, (2002), EPA-821-R-02-013.

Additional guidance was provided by:

- *Whole Effluent Toxicity Testing Guidance and Test Review Criteria*, Washington State Department of Ecology (revised Jun 2016) Pub# WQ-R-95-80.

DEVIATIONS FROM PROTOCOLS

Deviations from required procedures in the test methods:

- On Day 2 of the *C. dubia* chronic test, conductivity measurements were taken only at the 100% sample concentration, rather than in all sample concentrations (as required by WDOE guidance). EPA required guidance was met. See further discussion in the Chronic Results section.

Deviations from recommended procedures in the test methods:

- None noted.

TEST DESIGN

The following summarizes the conditions used for both overall testing and the specifics for each test (observations and notations can be found on the datasheets in Appendix A):

Overall Test Design:

- Acute tests: 6.25, 12.5, 25, 50, and 100 percent sample + dilution water for the control.
- Chronic tests: 6.25, 12.5, 25, 50, and 100 percent sample + dilution water for the control.

Test Organism Conditions:

- All organisms tested were fed and maintained during culturing, acclimation, and testing as prescribed by the EPA (2002).
- The test organisms appeared vigorous and in good condition prior to testing.

C. dubia acute test: (WDOE)

- Source: ET-C's in-house cultures
- Age: Less than 24 hours old
- Design: Four test vessels per concentration, five organisms per vessel
- Test Solution Renewal: None (i.e. static test)
- Monitoring:

- Daily: Survival, DO, pH, and temperature; all concentrations.
 - Test Initiation and Termination: Conductivity, all concentrations
- Termination: 48 hours.
- Endpoints: Survival (at termination)

P. promelas acute test (renewal):

- Source: Aquatox Inc., Hot Springs, Arkansas
- Age: 1 to 14 days old, within a 24 hour age range
- Design: Four test vessels per concentration, Ten organisms per vessel
- Test Solution Renewal: Once @ 48 hours (i.e. static-renewal test)
- Monitoring:
 - Daily: Survival, DO, pH, and temperature; all concentrations.
 - Pre and Post Renewal solutions: DO and pH, all concentrations.
 - Test Initiation, with each new sample use, and Termination:
 - Conductivity, all concentrations (WDOE)
- Termination: 96 hours.
- Endpoints: Survival (at termination)

C. dubia chronic test:

- Source: ET-C's in-house cultures
- Age: Less than 24 hours old and within an 8-hour age range, with blocking by known parentage
- Design: Ten test vessels per concentration, one organism per vessel
- Test Solution Renewal: Daily
- Monitoring:
 - Daily: Survival and neonate production (with brood determination)
 - Daily: DO and pH in pre and post-renewal solutions, all concentrations
 - Daily: Temperature in pre-renewal solutions, all concentrations
 - With each new sample: Conductivity in post-renewal solutions, control and highest sample concentration
- Termination: When 60%+ of surviving control organisms produce a 3rd brood.
 - Survival: @ after 7 days.
 - Reproduction: When 60%+ of surviving control organisms produce a 3rd brood.
- Endpoints: Survival (at termination) and Reproduction (through first 3 broods)

P. promelas chronic test:

- Source: Aquatox Inc., Hot Springs, Arkansas
- Age: Less than 48 hours old and within an 24 hour age range
- Design: Four test vessels per concentration, ten organisms per vessel
- Test Solution Renewal: Daily
- Monitoring:
 - Daily: Survival
 - Daily: DO and pH in pre and post-renewal solutions, all concentrations
 - Daily: Temperature in pre-renewal solutions, all concentrations
 - With each new sample: Conductivity in post-renewal solutions, control and highest sample concentration
- Termination: 7 days after test initiation.
- Endpoints: Survival and Growth (average dry weight per organism added @ initiation)

DILUTION WATER

The dilution water used was the standard culture water used by ET-C:

- Reconstituted, moderately hard water (as per EPA protocol) with a total hardness of 80 to 100 mg/L as CaCO₃ and an alkalinity of 60 to 70 mg/L as CaCO₃.

SAMPLE COLLECTION AND STORAGE

Samples were collected by City of Cheney personnel. The samples were accepted as scheduled by ET-C. Chain of Custody and Sample Receipt Records are provided in Appendix C.

- All samples were received within the EPA recommended 0 to 6 °C range.
- All samples were received within the WDOE required 0 to 6 °C range.
- All samples were initially used for test initiation or test solution renewal within the EPA recommended maximum holding time of 36 hours of sample collection.
- All subsequent uses of a sample occurred within the EPA recommended maximum holding time of 72 hours past the time of initial use of that sample.
- All subsequent uses of a sample occurred within the WDOE recommended maximum holding time of 72 hours past the time of sample collection.
- All subsequent uses of a sample occurred within the WDOE recommended maximum holding time of 84 hours past the time of sample collection. (Extended for renewals of a 96 hour duration acute test).
- Following receipt, the samples were stored in the dark at 0 to 6 °C until test solutions were prepared and tested.

SAMPLE PREPARATION

Samples used during these tests were:

- Temperature adjusted prior to test initiation and each daily renewal.

DATA ANALYSIS

The statistical analyses performed for the acute tests were those outlined in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, USEPA Office of Water, Fifth Edition (2002), EPA-821-R-02-012, using CETIS.

The statistical analyses performed for the chronic tests were those outlined in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, USEPA Office of Water, Fourth Edition (EPA 2002), EPA-821-R-02-013, using CETIS.

- The specific statistical analysis and CETIS version used for each endpoint evaluation is listed with the statistical outputs included with each test in Appendix A.
- If any additional analysis methods were also used, an explanation of the rationale and reference to the source method is included with the presentation of those results below.

Additional guidance was provided by:

- *Whole Effluent Toxicity Testing Guidance and Test Review Criteria*, Washington State Department of Ecology (revised Jun 2016) Pub# WQ-R-95-80.

RESULTS AND DISCUSSION

The raw data sheets for all tests are presented in Appendix A.

ACUTE BIOASSAYS

Table 1 summarizes the survival data for the *C. dubia* acute test.

Table 1 Summary of Acute Results <i>C. dubia</i>	
Sample Concentration (%)	Percent Survival (at Test Termination)
Control	100
6.25	100
12.5	100
25.0	100
50.0	100
100	100

Statistical analysis in accordance with the EPA protocol and WDOE guidance results in:

- NOEC = 100 %
- LOEC > 100 %
- LC₅₀ > 100 %

From the NPDES permit - "The ACEC = 100%."

- No statistically significant difference between control and ACEC was shown.

Dissolved oxygen concentrations remained at 4.0 mg/L or greater throughout the test period. Test temperatures remained in the range of 20±1 °C.

The *C. dubia* acute test meets Test Acceptability Criteria (TAC) of a minimum 90 percent control survival. Unless referenced above, the tests proceeded without any noted deviations or interruptions that could have affected test results. The testing should be considered "valid".

Table 2 summarizes the survival data for the *P. promelas* acute test.

Table 2 Summary of Acute Results <i>P. promelas</i>	
Sample Concentration (%)	Percent Survival (at Test Termination)
Control	97.5
6.25	100
12.5	100
25.0	97.5
50.0	100
100	95.0

Statistical analysis in accordance with the EPA protocol and WDOE guidance results in:

- NOEC = 100 %
- LOEC > 100 %
- LC₅₀ > 100 %

From the NPDES permit - "The ACEC = 100%."

- No statistically significant difference between control and ACEC was shown.

Dissolved oxygen concentrations remained at 4.0 mg/L or greater throughout the test period. Test temperatures remained in the range of 20±1 °C.

The *P. promelas* acute test meets Test Acceptability Criteria (TAC) of a minimum 90 percent control survival. Unless referenced above, the tests proceeded without any noted deviations or interruptions that could have affected test results. The testing should be considered "valid".

CHRONIC BIOASSAYS

Table 3 summarizes the survival and reproduction data for the *C. dubia* chronic test.

Table 3 Summary of Chronic Results <i>C. dubia</i>		
Sample Concentration (%)	Percent Survival	Mean Number of Young Per Adult
Control	100	22.6
6.25	90	21.5
12.5	100	23.6
25.0	80	23.6
50.0	90	20.7
100	80	18.6

Statistical analysis in accordance with the EPA protocol and WDOE guidance results in:

- NOEC = 100 %
- LOEC > 100 %
- IC₂₅ > 100 %

From the NPDES permit - "Compare the ACEC to the control using hypothesis testing at the 0.05 level of significance ... [ACEC = 100%]."

- No statistically significant difference between control and ACEC was shown.

Dissolved oxygen concentrations remained at 4.0 mg/L or greater throughout the test period. Test temperatures remained at 25±1 °C.

Note: EPA guidance states that conductivity is to be measured in each new sample (100% effluent) and the control. WDOE guidance states that conductivity is to be measured in all test concentrations. With the first use of the sample collected on March 20, conductivity measurements were only taken in the 100% sample concentration. This meets EPA guidance but not WDOE guidance. However, it is ET-C's professional opinion that missing the required conductivity measurements had no significant impact on test results.

The *C. dubia* test meets Test Acceptability Criteria (TAC) for a minimum 80 percent control survival and a minimum 15 young produced per surviving control adult. Unless referenced above, the tests proceeded without any noted deviations or interruptions that could have affected test results. The testing should be considered "valid".

Table 4 summarizes the survival and growth data for the *P. promelas* chronic test.

Table 4 Summary of Chronic Results <i>P. promelas</i>		
Sample Concentration (%)	Percent Survival	Mean Dry Weight Per Organism Added (mg)
Control	100	0.650
1.5	97.5	0.653
5.6	97.5	0.718
10	97.5	0.735
30	100	0.848
100	95.0	0.878

Statistical analysis in accordance with the EPA protocol and WDOE guidance results in:

- NOEC = 100 %
- LOEC > 100 %
- IC₂₅ > 100 %

From the NPDES permit - "Compare the ACEC to the control using hypothesis testing at the 0.05 level of significance ... [ACEC = 100%]."

- No statistically significant difference between control and ACEC was shown.

Dissolved oxygen concentrations remained at 4.0 mg/L or greater throughout the test period. Test temperatures remained at 25±1°C.

The *P. promelas* test meets Test Acceptability Criteria (TAC) for a minimum 80 percent control survival and a minimum weight of 0.250 mg per surviving control organism. Unless referenced above, the tests proceeded without any noted deviations or interruptions that could have affected test results. The testing should be considered "valid".

REFERENCE TOXICANT TESTS

Reference toxicant (reftox) testing is performed to document both initial and ongoing laboratory performance of the test method(s). While the health of the test organisms is primarily evaluated by the performance of the laboratory control, reftox test results also may be used to assess the health and sensitivity of the test organisms. Reftox test results within their respective cumulative summary (Cusum) chart limits are indicative of consistent laboratory performance and normal test organism sensitivity.

The results of the reftox tests indicate that the test organisms were within their respective cusum chart limits based on EPA guidelines. This demonstrates ongoing laboratory proficiency of the test methods and suggests normal test organism sensitivity in the associated client testing.

The *P. promelas* acute reftox test was conducted using sodium chloride. The *P. promelas* chronic reftox test was conducted using potassium chloride. The *C. dubia* reftox tests were conducted using sodium chloride.

The data sheets for the reference toxicant tests are provided in Appendix B.

Tables 5 and 6 summarize the reference toxicant test results and Cusum chart limits.

Table 5		
Acute Reference Toxicant Tests (g/L)		
Species	LC₅₀	Cusum Chart Limits
<i>C. dubia</i>	2.21	1.76 to 2.62
<i>P. promelas</i>	8.5	5.9 to 8.7

Table 6		
Chronic Reference Toxicant Tests (g/L)		
Species	IC₂₅	Cusum Chart Limits
<i>C. dubia</i> (survival)	1.36	1.21 to 1.99
<i>C. dubia</i> (reproduction)	0.63	0.31 to 1.21
<i>P. promelas</i> (survival)	0.59	0.57 to 0.66
<i>P. promelas</i> (growth)	0.59	0.45 to 0.74

APPENDIX A
RAW DATA SHEETS

Client

City of Cheney

SDG # B 4232

Test Initiation: Date

5-5-5

Contact

Mike Lambert 509-498-9305

Test Termination: Date

3-26-9

Sample ID Number	Field ID	Collected		Received		Temp (°C) as Rcv'd	Total Residual Chlorine (mg/l) <input type="checkbox"/> Dechlorination allowed as Rcv'd / after Dechlor.	Ammonia NH ₃ -N mg/l as Rcv'd	Hardness mg/l as CaCO ₃ as Rcv'd	Alkalinity mg/l as CaCO ₃ as Rcv'd	DO (mg/L) as Rcv'd	pH as Rcv'd	Cond. (uS) as Rcv'd	60 um filtered? (organisms noted)
		Date (mm/dd/yy)	Time (Pacific Zone)	Date (mm/dd/yy)	Time (Pacific Zone)									
36282-01	See Clarifier Eff	03/18/19	11:43	03/19/19	10:35	0.1	0.02	40.10	170	145	12.5	7.1	735	<input type="checkbox"/>
-02	See Clarifier Eff	3/20/19	11:44	3/21/19	10:38	3.0	0.02	40.10	170	147	9.9	7.3	683	<input type="checkbox"/>
-03	See Clarifier Eff	3/22/19	11:46	3/23/19	09:50	1.9	0.02	40.10	180	145	9.6	7.3	658	<input type="checkbox"/>
							/							
							/							
							/							
							/							
							/							
							/							
							/							
							/							
		Reporting Limits:				na	0.02 mg/L	0.10 mg/L	5 mg/L	5 mg/L	na	na	na	na

Note: "-" Indicates data collection or dechlorination not needed. Any other adjustments to samples prior to use are documented in Comments below or on Dilutions page.

Comments: ☒ Indicates the action was taken, (☐= action not taken): " - " = sample not dechlorinated, or analyte not collected/needed.

Comments: ☒ Indicates the action was taken, (☐= action not taken):

Dilution Water	ID#	Hardness mg/l as CaCO ₃	Alkalinity mg/l as CaCO ₃	Comments: <input checked="" type="checkbox"/> Indicates the action was taken, (<input type="checkbox"/> = action not taken):	
				" - " = sample not dechlorinated, or analyte not collected/needed.	
Recon MH (FHM)	4820	82	64		
	4822	85	62		
	4823	92	68		

Water Quality Meters Used/ID#: Dissolved Oxygen # 4 pH # 6 Conductivity # 2

FRESHWATER TOXICITY TEST: TEST ORGANISM INFORMATION

Client City of Cheney Sample Designation (SDG): B 4282

Test Species Information	Cd # <u>3541</u> <i>Ceriodaphnia dubia</i> Chronic	FHM # <u>2038</u> <i>Pimephales promelas</i> Chronic	Cd # <u>3542</u> <i>Ceriodaphnia dubia</i> Acute	FHM # <u>2038</u> <i>Pimephales promelas</i> Acute	
Organism Age at Initiation	<24 hrs, all within an 8 hr window	<48 hrs, all within a 24 hour window	< 24 hrs	/ Days, within a 24 hour window	
Test Container Size	30 ml	800 ml	30 ml	400 ml	
Test Volume	15 ml	500 ml	25 ml	250 ml	
Feeding: Type and Amount	0.10 ml Algae and 0.10 ml YCT daily	0.15 ml <i>Artemia</i> , 2 x Daily	Algae and YCT during acclimation	0.15 ml <i>Artemia</i> , @ 48 hrs	
Aeration: In Test Chambers via Slow Bubble :	<input checked="" type="checkbox"/> None <input type="checkbox"/> Prior to use	<input checked="" type="checkbox"/> None <input type="checkbox"/> Prior to use <input type="checkbox"/> @ _____ hrs	<input checked="" type="checkbox"/> None <input type="checkbox"/> Prior to use	<input checked="" type="checkbox"/> None <input type="checkbox"/> Prior to use <input type="checkbox"/> @ _____ hrs	
Acclimation Period	<24 hrs	<24 hrs	<24 hrs	<24 hrs	
Organism Source	In-House	<u>Aquatox</u>	In-House	<u>Aquatox</u>	
Size	-	-	-	-	
Loading Rate	-	-	-	-	

Dissolved Oxygen aeration justifications (in test chambers):

Test(s): ☐ All ☐ _____
Date: _____

Comments:

Test Solution Preparation and Dilution Record

Client: City of Cheney

Note: ☐ Indicates task not done, ☒ Indicates task was done. Temp adj. = Temperature adjusted to ambient or test temp
Ditto marks (') indicate that the same SDG, batch of dilution water, or food as the previous day's entry was used.

Ceriodaphnia dubia - Chronic

Test Concentration (%)	Sample Volume (mls)	Final Volume (mls)
Control	0.00	→ 200
6.25	12.5	→ 200
12.5	25.0	→ 200
25	50.0	→ 200
50	100	→ 200
100	200	→ 200

Total Sample volume needed per day = 388 mls

Fathead minnow - Chronic

Test Concentration (%)	Sample Volume (mls)	Final Volume (mls)
Control	0.00	→ 2000
6.25	125	→ 2000
12.5	250	→ 2000
25	500	→ 2000
50	1,000	→ 2000
100	2,000	→ 2000

Total Sample volume needed per day = 3875 mls

Ceriodaphnia dubia - Acute

Test Concentration (%)	Sample Volume (mls)	Final Volume (mls)
Control	0.00	→ 200
6.25	12.5	→ 200
12.5	25.0	→ 200
25	50.0	→ 200
50	100	→ 200
100	200	→ 200

Fathead minnow - Acute

Test Concentration (%)	Sample Volume (mls)	Final Volume (mls)
Control	0.00	→ 1000
6.25	62.5	→ 1000
12.5	125	→ 1000
25	250	→ 1000
50	500	→ 1000
100	1,000	→ 1000

Test Day	Sample ID Used	Daily Sample Preparation (prior to dilution)	Dilution Water Used	YCT ID Used	Algae ID Used	Date	Time	Initials
0 (Initiation)	B 4282-01	<input type="checkbox"/> Temp adj, <input type="checkbox"/> Aerated	ID # 4820	# 1192	# 1202	3/19/2019	10:40	SW
1	B - 01	<input type="checkbox"/> Temp adj, <input type="checkbox"/> Aerated	ID # 4820	# 1202	# 1202	3/20/19	09:00	SW
2	B - 02	<input type="checkbox"/> Temp adj, <input type="checkbox"/> Aerated	ID # 4820	# 1202	# 1202	3/21/19	10:50	SW
3	B - 02	<input type="checkbox"/> Temp adj, <input type="checkbox"/> Aerated	ID # 4820	# 1202	# 1202	3/22/19	08:35	SW
4	B - 03	<input type="checkbox"/> Temp adj, <input type="checkbox"/> Aerated	ID # 4822	# 1193	# 1202	3/23/19	10:40	SW
5	B - 03	<input type="checkbox"/> Temp adj, <input type="checkbox"/> Aerated	ID # 4822	# 1193	# 1202	3/24/19	10:45	SW
6	B - 03	<input type="checkbox"/> Temp adj, <input type="checkbox"/> Aerated	ID # 4822	# 1202	# 1202	3/25/19	08:40	SW
7	B - 03	<input type="checkbox"/> Temp adj, <input type="checkbox"/> Aerated	ID #	#	#	1/19		

Test Day	Sample ID Used	Daily Sample Preparation (prior to dilution)	Dilution Water Used	Date	Time	Initials
0 (Initiation)	B 4282-01	<input type="checkbox"/> Temp adj, <input type="checkbox"/> Aerated	ID # 4820	3/19/2019	10:40	SW
1	B - 01	<input type="checkbox"/> Temp adj, <input type="checkbox"/> Aerated	ID # 4820	3/20/19	09:01	SW
2	B - 02	<input type="checkbox"/> Temp adj, <input type="checkbox"/> Aerated	ID # 4820	3/21/19	10:50	SW
3	B - 02	<input type="checkbox"/> Temp adj, <input type="checkbox"/> Aerated	ID # 4820	3/22/19	08:35	SW
4	B - 03	<input type="checkbox"/> Temp adj, <input type="checkbox"/> Aerated	ID # 4822	3/23/19	10:40	SW
5	B - 03	<input type="checkbox"/> Temp adj, <input type="checkbox"/> Aerated	ID # 4822	3/24/19	10:45	SW
6	B - 03	<input type="checkbox"/> Temp adj, <input type="checkbox"/> Aerated	ID # 4823	3/25/19	09:00	SW

Test Day	Sample ID Used	Daily Sample Preparation (prior to dilution)	Dilution Water Used	Date	Time	Initials
0 (Initiation)	B 4282-01	<input type="checkbox"/> Temp adj, <input type="checkbox"/> Aerated	ID # 4820	3/19/2019	10:40	SW

Total Sample volume needed per day = 388 mls

Test Day	Sample ID Used	Daily Sample Preparation (prior to dilution)	Dilution Water Used	Date	Time	Initials
0 (Initiation)	B 4282-01	<input type="checkbox"/> Temp adj, <input type="checkbox"/> Aerated	ID # 4820	3/19/2019	10:40	SW
2	B - 01	<input type="checkbox"/> Temp adj, <input type="checkbox"/> Aerated	ID # 4820	3/19/19	15:15	SW
			ID # 4820	3/21/2019	08:25	SW

Total Sample volume needed per day = 1938 mls

48 HOUR FRESHWATER TOXICITY TEST SURVIVAL AND WATER QUALITY DATA

Client City of Cheney Sample ID # B 4282-01 Beginning Date 3-19-19 Time 1530
 Sample Description _____ Ending Date 3-21-19 Time 1900
 Random Template Used: Whiskey Cup random # 59 Waterbath/Incubator Used: # 1 Technician 0 hr MB 24 hr 0 48 hr 0
 Test Species Ceriodaphnia dubia ID# Cd 3542 Time 0 hr 1530 24 hr 1235 48 hr 1400
 Therm. ID# 0 hr # 251 24 hr # 252 48 hr # 254

Percent	Test Container Number	Number of Live Organisms			Dissolved Oxygen (mg/l)			pH			Temperature (°C)			Conductivity (µmhos/cm)		
		0	24	48	0	24	48	0	24	48	0	24	48	0	24	48
Control	Surrogate					7.5			7.7			20.0				
	A	5	5	5	6.5		6.6	8.2		7.8	20.8		19.5	366		409
	B	5	5	5												
	C	5	5	5												
	D	5	5	5												
6.25	Surrogate					7.6			7.7			20.0				
	A	5	5	5	6.8		6.7	8.1		7.8	20.8		19.7	387		420
	B	5	5	5												
	C	5	5	5												
	D	5	5	5												
12.5	Surrogate					7.7			7.8			19.8				
	A	5	5	5	6.9		6.8	8.1		7.8	20.8		19.8	408		428
	B	5	5	5												
	C	5	5	5												
	D	5	5	5												
25	Surrogate					7.8			7.8			20.1				
	A	5	5	5	7.1		6.9	7.9		7.8	20.8		19.8	444		473
	B	5	5	5												
	C	5	5	5												
	D	5	5	5												
50	Surrogate					7.9			7.9			20.3				
	A	5	5	5	7.2		7.0	7.7		7.9	20.7		19.5	502		589
	B	5	5	5												
	C	5	5	5												
	D	5	5	5												
100	Surrogate					8.0			8.1			20.2				
	A	5	5	5	8.1		7.0	7.4		8.0	20.6		20.0	681		700
	B	5	5	5												
	C	5	5	5												
	D	5	5	5												

Note: Use surrogate test chamber to determine temperature, DO, pH, and Conductivity measurements @ 24 hrs (to avoid injuring the organisms).

CETIS Summary Report

Report Date: 04 Apr-19 14:50 (p 1 of 1)
Test Code: B428201cda | 20-1511-5792

Ceriodaphnia 48-h Acute Survival Test							Eurofins TestAmerica - Corvallis				
Batch ID:	14-0480-3199	Test Type:	Survival (48h)	Analyst:	Michelle Bennett						
Start Date:	19 Mar-19 15:30	Protocol:	EPA/821/R-02-012 (2002)	Diluent:	Mod-Hard Synthetic Water						
Ending Date:	21 Mar-19 14:00	Species:	Ceriodaphnia dubia	Brine:							
Duration:	46h	Source:	In-House Culture	Age:	<24H						
Sample ID:	21-3288-9496	Code:	B4282-01	Client:							
Sample Date:	18 Mar-19 11:43	Material:	Unknown	Project:							
Receive Date:	19 Mar-19 10:05	Source:	Cheney WWTP (WA0020842)								
Sample Age:	28h (0.1 °C)	Station:									
Comparison Summary											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
08-8683-4293	48h Survival Rate	100	>100	NA	NA	1	Steel Many-One Rank Sum Test				
Point Estimate Summary											
Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method				
05-4484-6894	48h Survival Rate	EC50	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)				
Test Acceptability											
Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision					
05-4484-6894	48h Survival Rate	Control Resp	1	0.9 - NL	Yes	Passes Acceptability Criteria ✓					
08-8683-4293	48h Survival Rate	Control Resp	1	0.9 - NL	Yes	Passes Acceptability Criteria ✓					
48h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Dilution Water	4	1	1	1	1	1	0	0	0.0%	0.0%
6.25		4	1	1	1	1	1	0	0	0.0%	0.0%
12.5		4	1	1	1	1	1	0	0	0.0%	0.0%
25		4	1	1	1	1	1	0	0	0.0%	0.0%
50		4	1	1	1	1	1	0	0	0.0%	0.0%
100		4	1	1	1	1	1	0	0	0.0%	0.0%
48h Survival Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4						
0	Dilution Water	1	1	1	1						
6.25		1	1	1	1						
12.5		1	1	1	1						
25		1	1	1	1						
50		1	1	1	1						
100		1	1	1	1						
48h Survival Rate Binomials											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4						
0	Dilution Water	5/5	5/5	5/5	5/5						
6.25		5/5	5/5	5/5	5/5						
12.5		5/5	5/5	5/5	5/5						
25		5/5	5/5	5/5	5/5						
50		5/5	5/5	5/5	5/5						
100		5/5	5/5	5/5	5/5						

CETIS Analytical Report

Report Date: 04 Apr-19 14:50 (p 1 of 2)

Test Code: B428201cda | 20-1511-5792

Ceriodaphnia 48-h Acute Survival Test Eurofins TestAmerica - Corvallis

Analysis ID: 08-8683-4293	Endpoint: 48h Survival Rate	CETIS Version: CETISv1.8.8
Analyzed: 04 Apr-19 14:50	Analysis: Nonparametric-Control vs Treatments	Official Results: Yes

Batch ID: 14-0480-3199	Test Type: Survival (48h)	Analyst: Michelle Bennett
Start Date: 19 Mar-19 15:30	Protocol: EPA/821/R-02-012 (2002)	Diluent: Mod-Hard Synthetic Water
Ending Date: 21 Mar-19 14:00	Species: Ceriodaphnia dubia	Brine:
Duration: 46h	Source: In-House Culture	Age: <24H

Sample ID: 21-3288-9496	Code: B4282-01	Client:
Sample Date: 18 Mar-19 11:43	Material: Unknown	Project:
Receive Date: 19 Mar-19 10:05	Source: Cheney WWTP (WA0020842)	
Sample Age: 28h (0.1 °C)	Station:	

Data Transform	Zeta	Alt Hyp	Trials	Seed	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	100	>100	NA	1

Steel Many-One Rank Sum Test									
Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Dilution Water		6.25	18	10	1	6	0.8333	Asymp	Non-Significant Effect
		12.5	18	10	1	6	0.8333	Asymp	Non-Significant Effect
		25	18	10	1	6	0.8333	Asymp	Non-Significant Effect
		50	18	10	1	6	0.8333	Asymp	Non-Significant Effect
		100	18	10	1	6	0.8333	Asymp	Non-Significant Effect

Test Acceptability Criteria				
Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	1	0.9 - NL	Yes	Passes Acceptability Criteria

ANOVA Table						
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0	0	5	66540	<0.0001	Significant Effect
Error	0	0	18			
Total	0		23			

48h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	4	1	1	1	1	1	1	0	0.0%	0.0%
6.25		4	1	1	1	1	1	1	0	0.0%	0.0%
12.5		4	1	1	1	1	1	1	0	0.0%	0.0%
25		4	1	1	1	1	1	1	0	0.0%	0.0%
50		4	1	1	1	1	1	1	0	0.0%	0.0%
100		4	1	1	1	1	1	1	0	0.0%	0.0%

Angular (Corrected) Transformed Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	4	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	0.0%
6.25		4	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	0.0%
12.5		4	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	0.0%
25		4	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	0.0%
50		4	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	0.0%
100		4	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	0.0%

CETIS Analytical Report

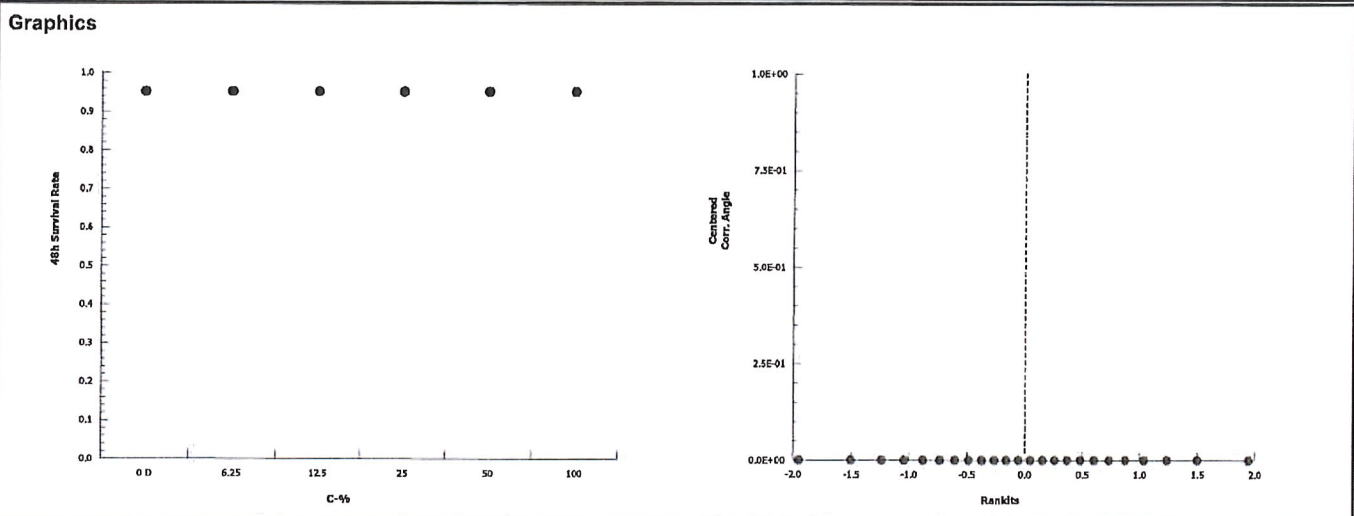
Report Date: 04 Apr-19 14:50 (p 2 of 2)
Test Code: B428201cda | 20-1511-5792

Ceriodaphnia 48-h Acute Survival Test			Eurofins TestAmerica - Corvallis		
Analysis ID:	08-8683-4293	Endpoint:	48h Survival Rate	CETIS Version:	CETISv1.8.8
Analyzed:	04 Apr-19 14:50	Analysis:	Nonparametric-Control vs Treatments	Official Results:	Yes

48h Survival Rate Detail					
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	1	1	1
6.25		1	1	1	1
12.5		1	1	1	1
25		1	1	1	1
50		1	1	1	1
100		1	1	1	1

Angular (Corrected) Transformed Detail					
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1.345	1.345	1.345	1.345
6.25		1.345	1.345	1.345	1.345
12.5		1.345	1.345	1.345	1.345
25		1.345	1.345	1.345	1.345
50		1.345	1.345	1.345	1.345
100		1.345	1.345	1.345	1.345

48h Survival Rate Binomials					
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	5/5	5/5	5/5	5/5
6.25		5/5	5/5	5/5	5/5
12.5		5/5	5/5	5/5	5/5
25		5/5	5/5	5/5	5/5
50		5/5	5/5	5/5	5/5
100		5/5	5/5	5/5	5/5



CETIS Analytical Report

Report Date: 04 Apr-19 14:50 (p 1 of 2)

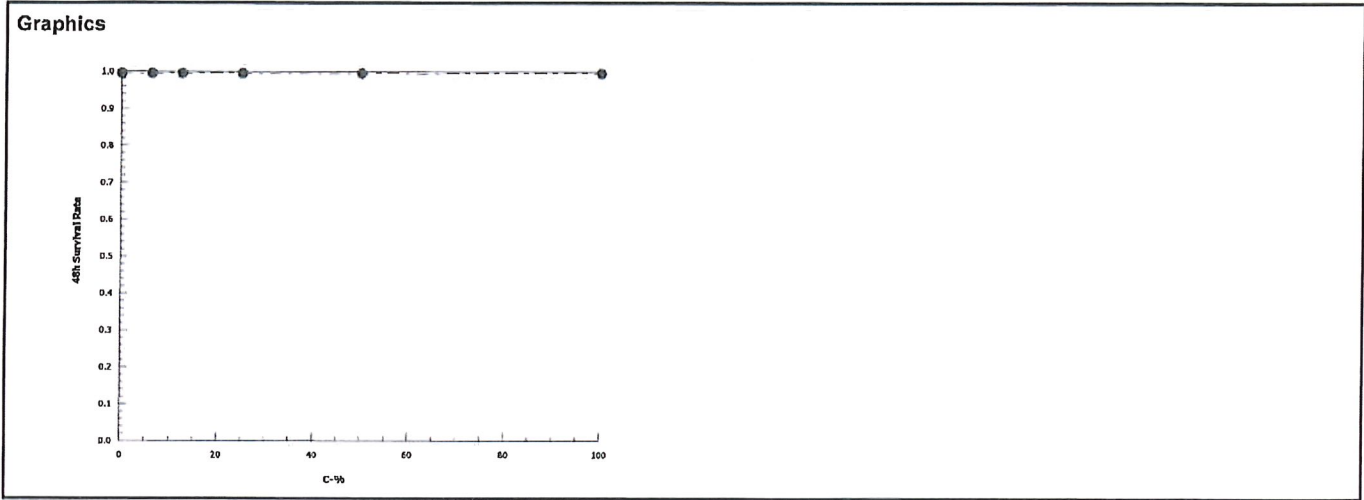
Test Code: B428201cda | 20-1511-5792

Ceriodaphnia 48-h Acute Survival Test				Eurofins TestAmerica - Corvallis			
Analysis ID: 05-4484-6894	Endpoint: 48h Survival Rate	CETIS Version: CETISv1.8.8					
Analyzed: 04 Apr-19 14:50	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes					
Batch ID: 14-0480-3199	Test Type: Survival (48h)	Analyst: Michelle Bennett					
Start Date: 19 Mar-19 15:30	Protocol: EPA/821/R-02-012 (2002)	Diluent: Mod-Hard Synthetic Water					
Ending Date: 21 Mar-19 14:00	Species: Ceriodaphnia dubia	Brine:					
Duration: 46h	Source: In-House Culture	Age: <24H					
Sample ID: 21-3288-9496	Code: B4282-01	Client:					
Sample Date: 18 Mar-19 11:43	Material: Unknown	Project:					
Receive Date: 19 Mar-19 10:05	Source: Cheney WWTP (WA0020842)						
Sample Age: 28h (0.1 °C)	Station:						
Linear Interpolation Options							
X Transform	Y Transform	Seed	Resamples				
Log(X+1)	Linear	838098	200				
Exp 95% CL		Method					
Yes		Two-Point Interpolation					
Test Acceptability Criteria							
Attribute	Test Stat	TAC Limits	Overlap				
Control Resp	1	0.9 - NL	Yes				
Decision: Passes Acceptability Criteria							
Point Estimates							
Level	%	95% LCL	95% UCL				
EC50	>100	N/A	N/A				
48h Survival Rate Summary							
Calculated Variate(A/B)							
C-%	Control Type	Count	Mean				
0	Dilution Water	4	1				
6.25		4	1				
12.5		4	1				
25		4	1				
50		4	1				
100		4	1				
48h Survival Rate Detail							
C-%	Control Type	Rep 1	Rep 2				
0	Dilution Water	1	1				
6.25		1	1				
12.5		1	1				
25		1	1				
50		1	1				
100		1	1				
48h Survival Rate Binomials							
C-%	Control Type	Rep 1	Rep 2				
0	Dilution Water	5/5	5/5				
6.25		5/5	5/5				
12.5		5/5	5/5				
25		5/5	5/5				
50		5/5	5/5				
100		5/5	5/5				

CETIS Analytical Report

Report Date: 04 Apr-19 14:50 (p 2 of 2)
Test Code: B428201cda | 20-1511-5792

Ceriodaphnia 48-h Acute Survival Test			Eurofins TestAmerica - Corvallis	
Analysis ID: 05-4484-6894	Endpoint: 48h Survival Rate	CETIS Version: CETISv1.8.8		
Analyzed: 04 Apr-19 14:50	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes		



96 HOUR FRESHWATER TOXICITY TEST SURVIVAL AND WATER QUALITY DATA

Random Template Used: 6 conc. x 4 reps. # 5 Waterbath/Incubator Used: # 1 Date: 3/19/20 Time: 16:10

Sample Description: City of Cheney Initial Sample ID # B 4282-01 Date: 3/23/20 Time: 14:15

Client: City of Cheney Technician: [Signature] 24 hr: 12:30 48 hr: 09:58 96 hr: 14:15

Test Species: Pimephales promelas ID# FHM 2038 Therm. ID# 0 0 hr: 25.2 24 hr: 25.2 48 hr: 25.1 96 hr: 25.1

Percent	Test Container Number	Number of Live Organisms					Dissolved Oxygen (mg/l)					pH					Temperature (°C)					Conductivity (µmhos/cm)				
		0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96
25	A	10	10	10	10	10	6.9	8.1	7.8	7.5	7.8	8.0	7.8	7.6	7.5	19.3	20.5	20.4	20.5	20.3	419					476
	B	10	10	10	10	10																				
	C	10	10	10	10	10																				
	D	10	10	9	9	9																				
50	A	10	10	10	10	10	7.3	8.0	7.8	7.5	7.9	7.8	7.8	7.6	7.5	19.3	20.3	20.3	20.5	20.3	519					548
	B	10	10	10	10	10																				
	C	10	10	10	10	10																				
	D	10	10	10	10	10																				
100	A	10	10	10	10	10	8.0	8.0	7.8	7.6	8.1	7.6	7.8	7.6	7.5	19.1	20.2	20.4	20.5	20.4	681					718
	B	10	10	9	9	9																				
	C	10	10	9	9	9																				
	D	10	10	10	10	10																				

* 206-43-23-19

CETIS Summary Report

Report Date: 04 Apr-19 14:54 (p 1 of 1)

Test Code: B428201ppa | 12-3097-0649

Fathead Minnow 96-h Acute Survival Test

Eurofins TestAmerica - Corvallis

Batch ID: 00-3690-4118	Test Type: Survival (96h)	Analyst: Michelle Bennett
Start Date: 19 Mar-19 16:10	Protocol: EPA/821/R-02-012 (2002)	Diluent: Mod-Hard Synthetic Water
Ending Date: 23 Mar-19 14:15	Species: Pimephales promelas	Brine:
Duration: 94h	Source: Aquatox, AR	Age: 1 D

Sample ID: 21-3288-9496	Code: B4282-01	Client:
Sample Date: 18 Mar-19 11:43	Material: Unknown	Project:
Receive Date: 19 Mar-19 10:05	Source: Cheney WWTP (WA0020842)	
Sample Age: 28h (0.1 °C)	Station:	

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
21-4290-0901	96h Survival Rate	100	>100	NA	6.56%	1	Steel Many-One Rank Sum Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
13-0355-8748	96h Survival Rate	EC50	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
13-0355-8748	96h Survival Rate	Control Resp	0.975	0.9 - NL	Yes	Passes Acceptability Criteria ✓
21-4290-0901	96h Survival Rate	Control Resp	0.975	0.9 - NL	Yes	Passes Acceptability Criteria ✓

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Dilution Water	4	0.975	0.8954	1	0.9	1	0.025	0.05	5.13%	0.0%
6.25		4	1	1	1	1	1	0	0	0.0%	-2.56%
12.5		4	1	1	1	1	1	0	0	0.0%	-2.56%
25		4	0.975	0.8954	1	0.9	1	0.025	0.05	5.13%	0.0%
50		4	1	1	1	1	1	0	0	0.0%	-2.56%
100		4	0.95	0.8581	1	0.9	1	0.02887	0.05774	6.08%	2.56%

96h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	1	0.9	1
6.25		1	1	1	1
12.5		1	1	1	1
25		1	1	1	0.9
50		1	1	1	1
100		1	0.9	0.9	1

96h Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	10/10	10/10	9/10	10/10
6.25		10/10	10/10	10/10	10/10
12.5		10/10	10/10	10/10	10/10
25		10/10	10/10	10/10	9/10
50		10/10	10/10	10/10	10/10
100		10/10	9/10	9/10	10/10

CETIS Analytical Report

Report Date: 04 Apr-19 14:54 (p 1 of 2)
Test Code: B428201ppa | 12-3097-0649

Fathead Minnow 96-h Acute Survival Test										Eurofins TestAmerica - Corvallis	
Analysis ID: 21-4290-0901		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.8.8							
Analyzed: 04 Apr-19 14:54		Analysis: Nonparametric-Control vs Treatments		Official Results: Yes							
Batch ID: 00-3690-4118		Test Type: Survival (96h)		Analyst: Michelle Bennett							
Start Date: 19 Mar-19 16:10		Protocol: EPA/821/R-02-012 (2002)		Diluent: Mod-Hard Synthetic Water							
Ending Date: 23 Mar-19 14:15		Species: Pimephales promelas		Brine:							
Duration: 94h		Source: Aquatox, AR		Age: 1 D							
Sample ID: 21-3288-9496		Code: B4282-01		Client:							
Sample Date: 18 Mar-19 11:43		Material: Unknown		Project:							
Receive Date: 19 Mar-19 10:05		Source: Cheney WWTP (WA0020842)									
Sample Age: 28h (0.1 °C)		Station:									
Data Transform		Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU	
Angular (Corrected)		NA	C > T	NA	NA	6.56%	100	>100	NA	1	
Steel Many-One Rank Sum Test											
Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)		
Dilution Water		6.25	20	10	1	6	0.9516	Asymp	Non-Significant Effect		
		12.5	20	10	1	6	0.9516	Asymp	Non-Significant Effect		
		25	18	10	2	6	0.8333	Asymp	Non-Significant Effect		
		50	20	10	1	6	0.9516	Asymp	Non-Significant Effect		
		100	16	10	2	6	0.6105	Asymp	Non-Significant Effect		
Test Acceptability Criteria											
Attribute	Test Stat	TAC Limits		Overlap	Decision						
Control Resp	0.975	0.9 - NL		Yes	Passes Acceptability Criteria						
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.02213278		0.004426555		5	1.2	0.3485	Non-Significant Effect			
Error	0.06639833		0.003688796		18						
Total	0.08853111				23						
Distributional Tests											
Attribute	Test			Test Stat	Critical	P-Value	Decision(α:1%)				
Variances	Mod Levene Equality of Variance			2	4.248	0.1274	Equal Variances				
Variances	Levene Equality of Variance			10.4	4.248	<0.0001	Unequal Variances				
Distribution	Shapiro-Wilk W Normality			0.8314	0.884	0.0010	Non-normal Distribution				
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	4	0.975	0.8954	1	#Error	0.9	1	0.025	5.13%	0.0%
6.25		4	1	1	1	#Error	1	1	0	0.0%	-2.56%
12.5		4	1	1	1	#Error	1	1	0	0.0%	-2.56%
25		4	0.975	0.8954	1	#Error	0.9	1	0.025	5.13%	0.0%
50		4	1	1	1	#Error	1	1	0	0.0%	-2.56%
100		4	0.95	0.8581	1	#Error	0.9	1	0.02887	6.08%	2.56%
Angular (Corrected) Transformed Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	D	4	1.371	1.242	1.501	#Error	1.249	1.412	0.04074	5.94%	0.0%
6.25		4	1.412	1.412	1.412	#Error	1.412	1.412	0	0.0%	-2.97%
12.5		4	1.412	1.412	1.412	#Error	1.412	1.412	0	0.0%	-2.97%
25		4	1.371	1.242	1.501	#Error	1.249	1.412	0.04074	5.94%	0.0%
50		4	1.412	1.412	1.412	#Error	1.412	1.412	0	0.0%	-2.97%
100		4	1.331	1.181	1.48	#Error	1.249	1.412	0.04705	7.07%	2.97%

CETIS Analytical Report

Report Date: 04 Apr-19 14:54 (p 2 of 2)

Test Code: B428201ppa | 12-3097-0649

Fathead Minnow 96-h Acute Survival Test				Eurofins TestAmerica - Corvallis	
Analysis ID: 21-4290-0901		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.8.8	
Analyzed: 04 Apr-19 14:54		Analysis: Nonparametric-Control vs Treatments		Official Results: Yes	
96h Survival Rate Detail					
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	D	1	1	0.9	1
6.25		1	1	1	1
12.5		1	1	1	1
25		1	1	1	0.9
50		1	1	1	1
100		1	0.9	0.9	1
Angular (Corrected) Transformed Detail					
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	D	1.412	1.412	1.249	1.412
6.25		1.412	1.412	1.412	1.412
12.5		1.412	1.412	1.412	1.412
25		1.412	1.412	1.412	1.249
50		1.412	1.412	1.412	1.412
100		1.412	1.249	1.249	1.412
96h Survival Rate Binomials					
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	D	10/10	10/10	9/10	10/10
6.25		10/10	10/10	10/10	10/10
12.5		10/10	10/10	10/10	10/10
25		10/10	10/10	10/10	9/10
50		10/10	10/10	10/10	10/10
100		10/10	9/10	9/10	10/10

CETIS Analytical Report

Report Date: 04 Apr-19 14:54 (p 1 of 2)

Test Code: B428201ppa | 12-3097-0649

Fathead Minnow 96-h Acute Survival Test			Eurofins TestAmerica - Corvallis	
Analysis ID:	13-0355-8748	Endpoint:	96h Survival Rate	CETIS Version: CETISv1.8.8
Analyzed:	04 Apr-19 14:54	Analysis:	Linear Interpolation (ICPIN)	Official Results: Yes

Batch ID:	00-3690-4118	Test Type:	Survival (96h)	Analyst:	Michelle Bennett
Start Date:	19 Mar-19 16:10	Protocol:	EPA/821/R-02-012 (2002)	Diluent:	Mod-Hard Synthetic Water
Ending Date:	23 Mar-19 14:15	Species:	Pimephales promelas	Brine:	
Duration:	94h	Source:	Aquatox, AR	Age:	1 D

Sample ID:	21-3288-9496	Code:	B4282-01	Client:	
Sample Date:	18 Mar-19 11:43	Material:	Unknown	Project:	
Receive Date:	19 Mar-19 10:05	Source:	Cheney WWTP (WA0020842)		
Sample Age:	28h (0.1 °C)	Station:			

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Log(X+1)	Linear	2134172	200	Yes	Two-Point Interpolation

Test Acceptability Criteria				
Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	0.975	0.9 - NL	Yes	Passes Acceptability Criteria

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary			Calculated Variate(A/B)								
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Dilution Water	4	0.975	0.9	1	0.025	0.05	5.13%	0.0%	39	40
6.25		4	1	1	1	0	0	0.0%	-2.56%	40	40
12.5		4	1	1	1	0	0	0.0%	-2.56%	40	40
25		4	0.975	0.9	1	0.025	0.05	5.13%	0.0%	39	40
50		4	1	1	1	0	0	0.0%	-2.56%	40	40
100		4	0.95	0.9	1	0.02887	0.05773	6.08%	2.56%	38	40

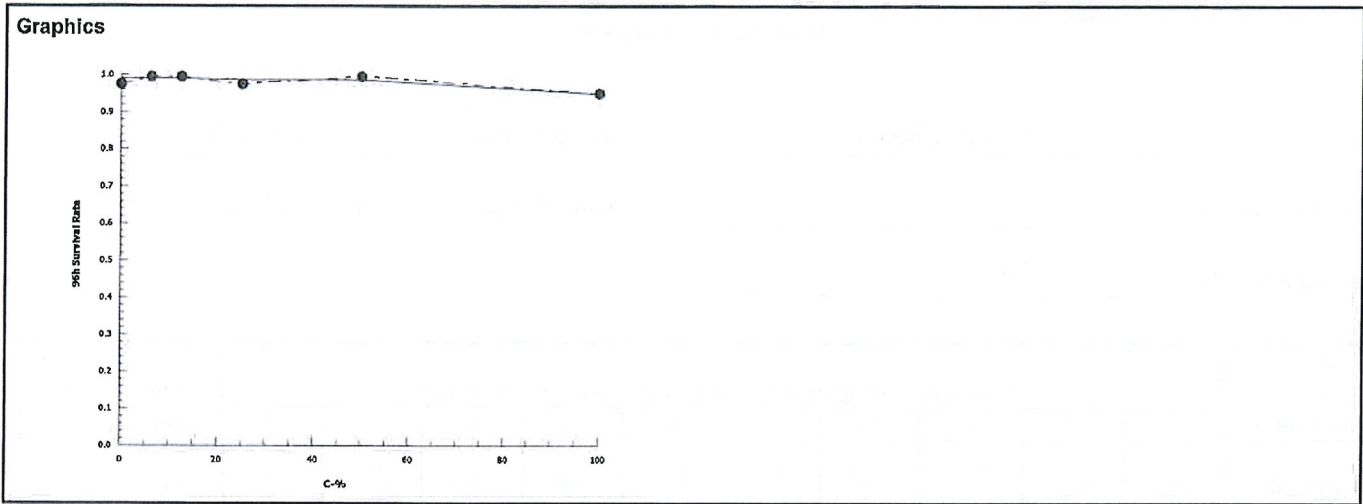
96h Survival Rate Detail					
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	1	0.9	1
6.25		1	1	1	1
12.5		1	1	1	1
25		1	1	1	0.9
50		1	1	1	1
100		1	0.9	0.9	1

96h Survival Rate Binomials					
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	10/10	10/10	9/10	10/10
6.25		10/10	10/10	10/10	10/10
12.5		10/10	10/10	10/10	10/10
25		10/10	10/10	10/10	9/10
50		10/10	10/10	10/10	10/10
100		10/10	9/10	9/10	10/10

CETIS Analytical Report

Report Date: 04 Apr-19 14:54 (p 2 of 2)
Test Code: B428201ppa | 12-3097-0649

Fathead Minnow 96-h Acute Survival Test		Eurofins TestAmerica - Corvallis	
Analysis ID: 13-0355-8748	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.8	
Analyzed: 04 Apr-19 14:54	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes	



Ceriodaphnia dubia
Survival and Reproduction
Test Data Summary

Client City of Cheney Test Start Date 3-19-19
Sample Description _____ Initial Sample ID# B 4282
Data summarized by MSS

Percent or Concentration	Total Live Young Produced in First 3 Broods per Replicate										# Alive Adults	Total Live Young
	A	B	C	D	E	F	G	H	I	J		
Control	26	25	0	23	23	28	26	32	19	24	10	226
	AD?	AD?	AD?	AD?	AD?	AD?	AD?	AD?	AD?	AD?		
6.25 %	3	9	24	26	23	40	27	24	19	20	9	215
	AD?	X	AD?	AD?	AD?	AD?	AD?	AD?	AD?	AD?		
12.5 %	25	22	24	28	24	27	23	15	23	25	10	236
	AD?	AD?	AD?	AD?	AD?	AD?	AD?	AD?	AD?	AD?		
25 %	24	23	22	26	29	24	28	22	23	15	8	236
	AD?	AD?	X	AD?	AD?	AD?	AD?	AD?	AD?	AD?		
50 %	18	12	22	24	22	25	22	25	20	17	9	207
	AD?	AD?	AD?	X	AD?	AD?	AD?	AD?	AD?	AD?		
100 %	21	14	20	13	18	21	26	33	0	20	8	186
	AD?	AD?	AD?	AD?	X	AD?	AD?	AD?	AD?	X	AD?	

Survival data summarized through Day 7. 60%+ of surviving controls with 3+ broods first observed on Day 7.

Test Organism Mortality (Adult dead) = ☐ AD? ☒

of Alive Adults = Number of test organism alive at termination
(for WDOE only, = Number of test organisms alive at Day 7)

Test Organism identified as Male = ☐ AD? ☐ M

Total Live Young = Total neonates produced in first 3 broods

Test Organism Injured during test = ☐ AD? ☐ I

Footnote: As per EPA-600-4-91-002 and EPA-821-R-02-013, *Ceriodaphnia dubia* test should be terminated when 60% of the surviving control organisms have produced their third brood, or at the end of eight days, whichever occurs first.

Also as per EPA-821-R-02-013 (13.10.9.1), "In this three-brood test, offspring from fourth or higher broods should not be counted and should not be included in the total number of neonates produced during the test."

CERIODAPHNIA CHRONIC SURVIVAL AND REPRODUCTION DATA

Neo's obtained from
Culture Board ID:
Slot #:

A	B	C	D	E	F	G	H	I	J
T	T	T	T	Food 1192	S. Sub	OCG	S. Sub	Dyno	Food 1205
17	34	42	54	C	G	J	E	B	F

Incubator Used: # 6
Random Template
Used: 6 conc # 11

Client City of Cheney

Test Initiation: Date: 3/19/2019 Time: 13:50

Sample Description Initial Sample ID # B4282 - 01

Termination: Date: 3/26/2019 Time: 02:10

Technician Day 0 MB Day 1 MS Day 2 MS Day 3 MB Day 4 MB Day 5 MB Day 6 MB Day 7 MB Day 8
Time Day 0 1350 Day 1 1100 Day 2 1133 Day 3 8940 Day 4 1176 Day 5 1055 Day 6 0940 Day 7 0920 Day 8

Percent	Day	Daily Number of Live Young for each Replicate										No. Live Adults	Daily Total Live Young
Control	1	0	0	0	0	0	0	0	0	0	0	10	0
	2	0	0	0	0	0	0	0	0	0	0	10	0
	3	0	0	0AY	0	0	0	4	5	0	0	10	9
	4	3	5	0	5	4	4	0	0	3	4	10	28
	5	9	0	0AY	8	7	10	8	12	7	8	10	69.75
	6	0	6	0	10	12	0	14	15	9	12	10	90.75
	7	14	14	0AY	0	0	14	0	(10)	0	0	10	42+0
	8												
6.25 %	1	0	0	0	0	0	0	0	0	0	0	10	0
	2	0	0	0	0	0	0	0	0	0	0	10	0
	3	0	0	4	3	0	0	4	3	4	0	10	18
	4	3AD	5	0	0	4	0	0	6	0	3	9	21
	5	1	4AY	11	10	7	9	11	0	6	7	9	65
	6	1	0	9	13	12	14	12	15	9	10	9	94
	7	1	0	(11)	(12)	0	17	0	(16)	0	0	9	17+0
	8	1											
12.5 %	1	0	0	0	0	0	0	0	0	0	0	10	0
	2	0	0	0	0	0	0	0	0	0	0	10	0
	3	0	0	3	0	0	0	4	0	0	0	10	7
	4	5	0	0	4	4	3	0	3	2	3	10	24
	5	6	0	9	9	8	9	7	10	8	1/0	10	75
	6	0	14	12	15	0	15	12	0	13	6	10	87
	7	14	0	0	0	12	(10)	(12)	2+AY	0	15	10	43+0
	8												
25 %	1	0	0	0	0	0	0	0	0	0	0	10	0
	2	0	0	0	0	0	0	0	0	0	4	10	4
	3	0	0	0	0	0	0	4	4	3	0	10	14
	4	5	4	4	5	4	3	0	0	0	3	10	28
	5	5	7	7	9	10	8	11	8	9	8	10	82
	6	0	12	11	12	0	13	13	10	11	13	10	95
	7	14	0AY	0AY	(10)	15	0	(13)	(12)	0	0	8	29+0
	8		1	5									
50 %	1	0	0	0	0	0	0	0	0	0	0	10	0
	2	0	0	0	0	0	0	0	0	0	0	10	0
	3	0	3	0	3	0	0	0	3	0	0	10	9
	4	3	3	2	0	3	4	3	6	2	3	10	23
	5	5	0	8	10	8	9	8	7	6	4	10	65
	6	10	6	12	0	11	12	0	15	12	10	10	80
	7	0	0	0AY	11	0	0	11	0	0	0	9	22
	8												
100 %	1	0	0	0	0	0	0	0	0	0	0	10	0
	2	0	0	0	0	0	0	0	0	0	0	10	0
	3	0	0	3	0	0	3	0	0	0AD	3	10	9
	4	3	3	0	0	3	0	0	0	0	0	9	9
	5	7	5	8	9	6	9	8	10	10	8	9	70
	6	0	0	9	4	9	9	10	12	9	9	9	62
	7	11	6	0	0AY	(12)	(10)	8	11	0	0	8	36+0
	8				1								

"AD" = Adult Dead, "AY" = Aborted young, "M" = male organism, "F" = Female, "R" = Adult releasing young, " / " = split brood (carry-over brood / current day brood),

"Inj" = Adult Injured during test solution renewal, replicate removed from analysis. "AM" = Adult missing, remove from analysis. A circled neonate count = 4th brood

Footnote: As per WDOE, C. dubia test reproduction should be when 60% of the surviving control organisms have produced their third brood (Days 6, 7, or 8). Survival is at seven days.

CERIODAPHNIA WATER QUALITY DATA

Client: City of Cheney Initiated: 3/19/2019 Date: 13:50 Adults Isolated Date: 3/18/2019 Time: 14:20

Sample Description: W3 Initial Sample ID #: B 4282 Neo's Collected Date: 3/18/2019 Time: 18:40

Tech: Day 0 W3 Day 1 M3 Day 2 M3 Day 3 M3 Day 4 M3 Day 5 M3 Day 6 M3 Day 7 M3 Day 8 M3

Time: Day 0 15:55 Day 1 11:00 Day 2 11:33 Day 3 10:05 Day 4 11:45 Day 5 11:40 Day 6 10:00 Day 7 07:15 Day 8 :

Therm: Day 0 # 251 Day 1 # 254 Day 2 # 254 Day 3 # 254 Day 4 # 254 Day 5 # 255 Day 6 # 255 Day 7 # 255 Day 8 # :

	Dissolved Oxygen (mg/l)								pH								Temperature (°C) / Conductivity (µS) (1 st use of each sample only)										
	Day								Day								Day										
	0	1	2	3	4	5	6	7	8	0	1	2	3	4	5	6	7	8	0	1	2	3	4	5	6	7	8
Control	7.7	7.7	7.6	7.2	7.4	6.1	8.0	7.7		8.1	8.1	7.9	7.9	8.0	7.9	7.6	7.2		7.3	25.9	25.4	25.5	25.3	24.7	25.7	25.3	
6.25 %	7.7	7.3	6.1	7.4	7.2	7.6	8.1	7.8		8.0	8.1	7.7	7.9	7.5	7.8	7.5			7.0	25.3	25.3	25.8	26.0	25.6	25.1	24.5	
12.5 %	7.8	7.4	6.5	7.4	7.3	7.4	8.3	7.8		8.0	8.1	7.7	7.9	7.5	7.8	7.5			7.0	25.0	25.1	26.0	26.2	25.9	25.1	25.2	
25 %	7.8	7.5	7.0	7.4	7.5	7.5	8.2	7.4		7.9	7.9	7.7	7.8	7.4	7.4	7.4			7.0	25.1	25.1	25.5	25.5	25.1	25.2	25.6	
50 %	7.9	7.4	7.0	7.4	7.7	7.6	8.2	7.6		7.7	7.7	7.6	7.6	7.2	7.4	7.4			7.0	25.4	25.4	25.7	25.3	24.9	24.9	24.9	
50 %	8.0	7.7	7.5	7.5	7.8	7.7	8.3	7.8		7.5	7.7	7.4	7.5	7.2	7.2	7.2			7.0	25.0	25.1	25.3	25.3	24.9	24.9	24.9	
100 %	8.0	7.6	7.5	7.4	7.8	7.2	8.2	7.8		7.3	7.3	8.0	8.1	7.9	7.9	7.9			7.3	25.3	25.4	25.1	25.3	24.9	25.4	24.3	
100 %	8.0	7.8	7.5	7.7	8.0	7.6	8.3	7.8		7.5	7.6	7.3	7.4	7.2	7.2	7.2			7.3	25.1	25.1	25.3	25.3	24.9	25.4	24.3	

COMMENTS: Temperatures taken just prior to test solution renewals. DO, pH, and Conductivity taken following organism transfer.

3-15-19

23.8

= Temp out of recom. range

Note: All Day 0 data represents conditions at initiation. All other days: numerator represents pre-renewal conditions, denominator represents post-renewal conditions.

CETIS Summary Report

Report Date: 04 Apr-19 15:00 (p 1 of 2)

Test Code: B428201cdc | 01-4019-7266

Ceriodaphnia 7-d Survival and Reproduction Test Eurofins TestAmerica - Corvallis

Batch ID: 02-7652-4880	Test Type: Reproduction-Survival (7d)	Analyst: Michelle Bennett
Start Date: 19 Mar-19 13:50	Protocol: EPA/821/R-02-013 (2002)	Diluent: Mod-Hard Synthetic Water
Ending Date: 26 Mar-19 08:10	Species: Ceriodaphnia dubia	Brine:
Duration: 6d 18h	Source: In-House Culture	Age: <24H

Sample ID: 21-3288-9496	Code: B4282-01	Client:
Sample Date: 18 Mar-19 11:43	Material: Unknown	Project:
Receive Date: 19 Mar-19 10:05	Source: Cheney WWTP (WA0020842)	
Sample Age: 26h (0.1 °C)	Station:	

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
16-0402-4936	7d Survival Rate	100	>100	NA	NA	1	Fisher Exact/Bonferroni-Holm Test
07-1475-2041	Reproduction	100	>100	NA	31.8%	1	Steel Many-One Rank Sum Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
16-8816-5075	Reproduction	IC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
16-0402-4936	7d Survival Rate	Control Resp	1	0.8 - NL	Yes	Passes Acceptability Criteria ✓
07-1475-2041	Reproduction	Control Resp	22.6	15 - NL	Yes	Passes Acceptability Criteria ✓
16-8816-5075	Reproduction	Control Resp	22.6	15 - NL	Yes	Passes Acceptability Criteria ✓
07-1475-2041	Reproduction	PMSD	0.3179	0.13 - 0.47	Yes	Passes Acceptability Criteria ✓

7d Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Dilution Water	10	1	1	1	1	1	0	0	0.0%	0.0%
6.25		10	0.9	0.6738	1	0	1	0.1	0.3162	35.14%	10.0%
12.5		10	1	1	1	1	1	0	0	0.0%	0.0%
25		10	0.8	0.4984	1	0	1	0.1333	0.4216	52.7%	20.0%
50		10	0.9	0.6738	1	0	1	0.1	0.3162	35.14%	10.0%
100		10	0.8	0.4984	1	0	1	0.1333	0.4216	52.7%	20.0%

Reproduction Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Dilution Water	10	22.6	16.42	28.78	0	32	2.733	8.644	38.25%	0.0%
6.25		10	21.5	14.29	28.71	3	40	3.188	10.08	46.88%	4.87%
12.5		10	23.6	21.07	26.13	15	28	1.118	3.534	14.97%	-4.43%
25		10	23.6	20.84	26.36	15	29	1.222	3.864	16.37%	-4.43%
50		10	20.7	17.78	23.62	12	25	1.291	4.084	19.73%	8.41%
100		10	18.6	12.4	24.8	0	33	2.741	8.669	46.61%	17.7%

CETIS Summary Report

Report Date: 04 Apr-19 15:00 (p 2 of 2)
Test Code: B428201cdc | 01-4019-7266

Ceriodaphnia 7-d Survival and Reproduction Test											Eurofins TestAmerica - Corvallis
7d Survival Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	1	1	1	1	1	1	1	1	1	1
6.25		0	1	1	1	1	1	1	1	1	1
12.5		1	1	1	1	1	1	1	1	1	1
25		1	0	0	1	1	1	1	1	1	1
50		1	1	0	1	1	1	1	1	1	1
100		1	1	1	0	1	1	1	1	0	1
Reproduction Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	26	25	0	23	23	28	26	32	19	24
6.25		3	9	24	26	23	40	27	24	19	20
12.5		25	22	24	28	24	27	23	15	23	25
25		24	23	22	26	29	24	28	22	23	15
50		18	12	22	24	22	25	22	25	20	17
100		21	14	20	13	18	21	26	33	0	20
7d Survival Rate Binomials											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
6.25		0/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
12.5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
25		1/1	0/1	0/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
50		1/1	1/1	0/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	0/1	1/1	1/1	1/1	1/1	0/1	1/1

CETIS Analytical Report

Report Date: 04 Apr-19 15:00 (p 1 of 2)

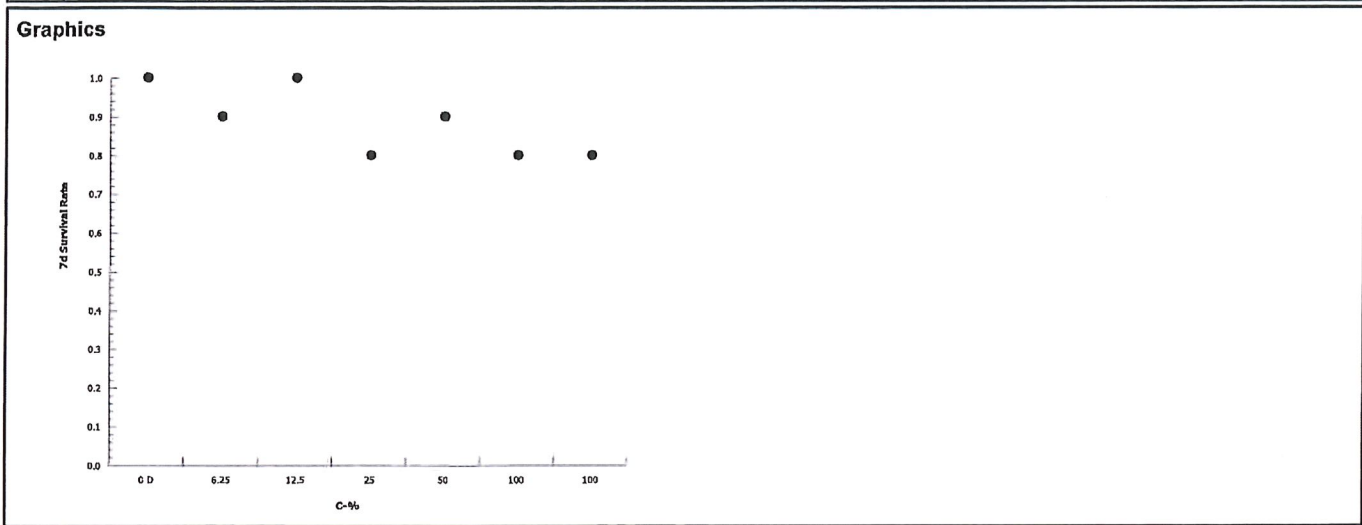
Test Code: B428201cdc | 01-4019-7266

Ceriodaphnia 7-d Survival and Reproduction Test						Eurofins TestAmerica - Corvallis					
Analysis ID: 16-0402-4936	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.8.8									
Analyzed: 04 Apr-19 14:59	Analysis: STP 2x2 Contingency Tables	Official Results: Yes									
Batch ID: 02-7652-4880	Test Type: Reproduction-Survival (7d)	Analyst: Michelle Bennett									
Start Date: 19 Mar-19 13:50	Protocol: EPA/821/R-02-013 (2002)	Diluent: Mod-Hard Synthetic Water									
Ending Date: 26 Mar-19 08:10	Species: Ceriodaphnia dubia	Brine:									
Duration: 6d 18h	Source: In-House Culture	Age: <24H									
Sample ID: 21-3288-9496	Code: B4282-01	Client:									
Sample Date: 18 Mar-19 11:43	Material: Unknown	Project:									
Receive Date: 19 Mar-19 10:05	Source: Cheney WWTP (WA0020842)										
Sample Age: 26h (0.1 °C)	Station:										
Data Transform	Zeta	Alt Hyp	Trials	Seed	NOEL	LOEL	TOEL	TU			
Untransformed		C > T	NA	NA	100	>100	NA	1			
Fisher Exact/Bonferroni-Holm Test											
Control	vs	C-%	Test Stat	P-Value	P-Type	Decision(α:5%)					
Dilution Water		6.25	0.5	1.0000	Exact	Non-Significant Effect					
		12.5	1	1.0000	Exact	Non-Significant Effect					
		25	0.2368	1.0000	Exact	Non-Significant Effect					
		50	0.5	1.0000	Exact	Non-Significant Effect					
		100	0.2368	1.0000	Exact	Non-Significant Effect					
Test Acceptability Criteria											
Attribute	Test Stat	TAC Limits	Overlap	Decision							
Control Resp	1	0.8 - NL	Yes	Passes Acceptability Criteria							
Data Summary											
C-%	Control Type	NR	R	NR + R	Prop NR	Prop R	%Effect				
0	Dilution Water	10	0	10	1	0	0.0%				
6.25		9	1	10	0.9	0.1	10.0%				
12.5		10	0	10	1	0	0.0%				
25		8	2	10	0.8	0.2	20.0%				
50		9	1	10	0.9	0.1	10.0%				
100		8	2	10	0.8	0.2	20.0%				
7d Survival Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	1	1	1	1	1	1	1	1	1	1
6.25		0	1	1	1	1	1	1	1	1	1
12.5		1	1	1	1	1	1	1	1	1	1
25		1	0	0	1	1	1	1	1	1	1
50		1	1	0	1	1	1	1	1	1	1
100		1	1	1	0	1	1	1	1	0	1
7d Survival Rate Binomials											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
6.25		0/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
12.5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
25		1/1	0/1	0/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
50		1/1	1/1	0/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	0/1	1/1	1/1	1/1	1/1	0/1	1/1

CETIS Analytical Report

Report Date: 04 Apr-19 15:00 (p 2 of 2)
 Test Code: B428201cdc | 01-4019-7266

Ceriodaphnia 7-d Survival and Reproduction Test		Eurofins TestAmerica - Corvallis	
Analysis ID: 16-0402-4936	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.8.8	
Analyzed: 04 Apr-19 14:59	Analysis: STP 2x2 Contingency Tables	Official Results: Yes	



CETIS Analytical Report

Report Date: 04 Apr-19 15:00 (p 1 of 2)
 Test Code: B428201cdc | 01-4019-7266

Ceriodaphnia 7-d Survival and Reproduction Test										Eurofins TestAmerica - Corvallis	
Analysis ID: 07-1475-2041		Endpoint: Reproduction		CETIS Version: CETISv1.8.8							
Analyzed: 04 Apr-19 14:59		Analysis: Nonparametric-Control vs Treatments		Official Results: Yes							
Batch ID: 02-7652-4880		Test Type: Reproduction-Survival (7d)		Analyst: Michelle Bennett							
Start Date: 19 Mar-19 13:50		Protocol: EPA/821/R-02-013 (2002)		Diluent: Mod-Hard Synthetic Water							
Ending Date: 26 Mar-19 08:10		Species: Ceriodaphnia dubia		Brine:							
Duration: 6d 18h		Source: In-House Culture		Age: <24H							
Sample ID: 21-3288-9496		Code: B4282-01		Client:							
Sample Date: 18 Mar-19 11:43		Material: Unknown		Project:							
Receive Date: 19 Mar-19 10:05		Source: Cheney WWTP (WA0020842)									
Sample Age: 26h (0.1 °C)		Station:									
Data Transform		Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU	
Untransformed		NA	C > T	NA	NA	31.8%	100	>100	NA	1	
Steel Many-One Rank Sum Test											
Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)		
Dilution Water		6.25	97.5	75	4	18	0.6152	Asymp	Non-Significant Effect		
		12.5	100.5	75	4	18	0.7129	Asymp	Non-Significant Effect		
		25	99.5	75	4	18	0.6816	Asymp	Non-Significant Effect		
		50	81.5	75	2	18	0.1312	Asymp	Non-Significant Effect		
		100	83.5	75	2	18	0.1720	Asymp	Non-Significant Effect		
Test Acceptability Criteria											
Attribute	Test Stat	TAC Limits		Overlap	Decision						
Control Resp	22.6	15 - NL		Yes	Passes Acceptability Criteria						
PMSD	0.3179	0.13 - 0.47		Yes	Passes Acceptability Criteria						
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	186.5333		37.30667		5	0.7573	0.5845	Non-Significant Effect			
Error	2660.2		49.26296		54						
Total	2846.733				59						
Distributional Tests											
Attribute	Test			Test Stat	Critical	P-Value	Decision(α:1%)				
Variances	Bartlett Equality of Variance			18	15.09	0.0029	Unequal Variances				
Distribution	Shapiro-Wilk W Normality			0.8745	0.9459	<0.0001	Non-normal Distribution				
Reproduction Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	10	22.6	16.42	28.78	24.5	0	32	2.733	38.25%	0.0%
6.25		10	21.5	14.29	28.71	23.5	3	40	3.188	46.88%	4.87%
12.5		10	23.6	21.07	26.13	24	15	28	1.118	14.97%	-4.43%
25		10	23.6	20.84	26.36	23.5	15	29	1.222	16.37%	-4.43%
50		10	20.7	17.78	23.62	22	12	25	1.291	19.73%	8.41%
100		10	18.6	12.4	24.8	20	0	33	2.741	46.61%	17.7%
Reproduction Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	26	25	0	23	23	28	26	32	19	24
6.25		3	9	24	26	23	40	27	24	19	20
12.5		25	22	24	28	24	27	23	15	23	25
25		24	23	22	26	29	24	28	22	23	15
50		18	12	22	24	22	25	22	25	20	17
100		21	14	20	13	18	21	26	33	0	20

CETIS Analytical Report

Report Date: 04 Apr-19 15:00 (p 2 of 2)
 Test Code: B428201cdc | 01-4019-7266

Ceriodaphnia 7-d Survival and Reproduction Test

Eurofins TestAmerica - Corvallis

Analysis ID: 07-1475-2041

Endpoint: Reproduction

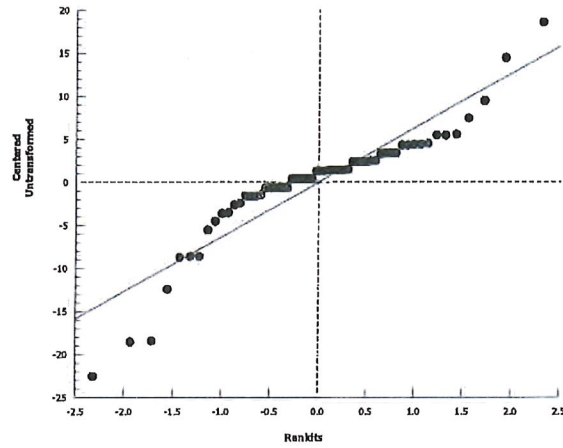
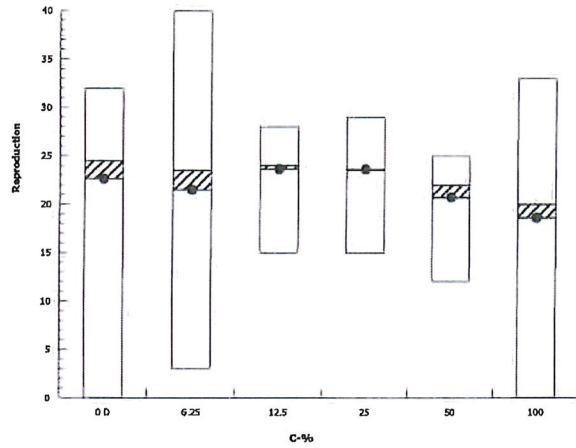
CETIS Version: CETISv1.8.8

Analyzed: 04 Apr-19 14:59

Analysis: Nonparametric-Control vs Treatments

Official Results: Yes

Graphics



CETIS Analytical Report

Report Date: 04 Apr-19 15:00 (p 1 of 2)

Test Code: B428201cdc | 01-4019-7266

Ceriodaphnia 7-d Survival and Reproduction Test

Eurofins TestAmerica - Corvallis

Analysis ID: 16-8816-5075 Endpoint: Reproduction CETIS Version: CETISv1.8.8
 Analyzed: 04 Apr-19 15:00 Analysis: Linear Interpolation (ICPIN) Official Results: Yes

Batch ID: 02-7652-4880 Test Type: Reproduction-Survival (7d) Analyst: Michelle Bennett
 Start Date: 19 Mar-19 13:50 Protocol: EPA/821/R-02-013 (2002) Diluent: Mod-Hard Synthetic Water
 Ending Date: 26 Mar-19 08:10 Species: Ceriodaphnia dubia Brine:
 Duration: 6d 18h Source: In-House Culture Age: <24H

Sample ID: 21-3288-9496 Code: B4282-01 Client:
 Sample Date: 18 Mar-19 11:43 Material: Unknown Project:
 Receive Date: 19 Mar-19 10:05 Source: Cheney WWTP (WA0020842)
 Sample Age: 26h (0.1 °C) Station:

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Log(X+1)	Linear	968504	200	Yes	Two-Point Interpolation

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	22.6	15 - NL	Yes	Passes Acceptability Criteria

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
IC25	>100	N/A	N/A	<1	NA	NA

Reproduction Summary

Calculated Variate

C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Dilution Water	10	22.6	0	32	2.733	8.644	38.25%	0.0%
6.25		10	21.5	3	40	3.188	10.08	46.88%	4.87%
12.5		10	23.6	15	28	1.118	3.534	14.97%	-4.43%
25		10	23.6	15	29	1.222	3.864	16.37%	-4.43%
50		10	20.7	12	25	1.291	4.084	19.73%	8.41%
100		10	18.6	0	33	2.741	8.669	46.61%	17.7%

Reproduction Detail

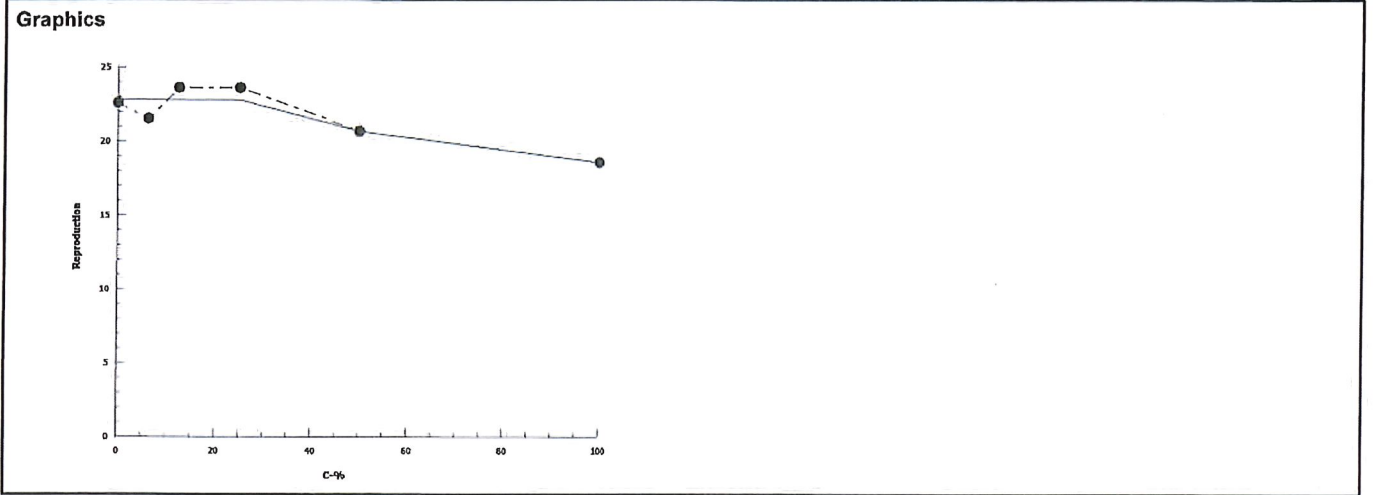
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	26	25	0	23	23	28	26	32	19	24
6.25		3	9	24	26	23	40	27	24	19	20
12.5		25	22	24	28	24	27	23	15	23	25
25		24	23	22	26	29	24	28	22	23	15
50		18	12	22	24	22	25	22	25	20	17
100		21	14	20	13	18	21	26	33	0	20

CETIS Analytical Report

Report Date: 04 Apr-19 15:00 (p 2 of 2)

Test Code: B428201cdc | 01-4019-7266

Ceriodaphnia 7-d Survival and Reproduction Test		Eurofins TestAmerica - Corvallis	
Analysis ID: 16-8816-5075	Endpoint: Reproduction	CETIS Version: CETISv1.8.8	
Analyzed: 04 Apr-19 15:00	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes	



FATHEAD MINNOW 7-DAY SURVIVAL AND WATER QUALITY DATA

Random Template Used: 6 conc. x 4 reps. # 6 Waterbath/incubator Used: _____ Date Initiated 3/18/20 19 Time 15:10
Initial sample ID B 4282 - 01 # 10 Date Terminated 3/18/20 19 Time 08:35

Client _____ City of Cheney _____ Sample Description _____

Tech: Day 0 2 Day 1 2 Day 2 2 Day 3 2 Day 4 2 Day 5 2 Day 6 2 Day 7 2
Time Day 0 15:10 Day 1 11:00 Day 2 12:25 Day 3 10:05 Day 4 13:45 Day 5 11:20 Day 6 11:00 Day 7 08:35

Conc. or Percent	Day	Number of Live Organisms				Dissolved O ₂ (mg/l)		pH		Temp. (°C)	# Therm ID	Conductivity (µS)
		A	B	C	D	Pre	Post	Pre	Post	Pre		Post (1 st use)
Control	0	10	10	10	10		6.5		8.2	Post: 25.4	251	366
	1	10	10	10	10	7.0	7.7	7.5	7.8	24.6	251	
	2	10	10	10	10	6.0	7.0	7.6	8.1	24.8	251	342
	3	10	10	10	10	5.8	7.1	7.1	7.8	24.6	251	
	4	10	10	10	10	6.3	7.4	7.6	8.0	24.9	251	326
	5	10	10	10	10	6.0	7.1	7.4	7.9	24.9	251	
	6	10	10	10	10	6.9	8.0	7.6	8.0	24.8	251	
	7	10	10	10	10	6.9		7.5		24.7	252	
6.25 %	0	10	10	10	10		6.8		8.1	Post: 25.6		387
	1	10	10	10	10	7.0	7.7	7.5	7.8	24.7		
	2	10	10	10	9	6.1	7.1	7.6	8.0	24.9		358
	3	10	10	10	9	5.8	7.2	7.2	7.8	24.6		
	4	10	10	10	9	6.5	7.6	7.6	7.9	24.7		354
	5	9	10	10	9	6.2	7.2	7.5	7.8	24.8		
	6	9	10	10	9	7.1	8.1	7.6	7.8	24.4		
	7	5	10	10	9	7.0		7.4		24.6		
12.5 %	0	10	10	10	10		6.9		8.1	Post: 25.5		405
	1	10	10	10	10	7.0	7.8	7.5	7.7	24.6		
	2	10	10	10	10	6.1	7.3	7.6	7.9	24.8		376
	3	10	10	10	10	5.8	7.3	7.2	7.7	24.6		
	4	10	9	10	10	6.5	7.7	7.6	7.8	24.8		375
	5	10	9	10	10	6.2	7.3	7.5	7.7	24.9		
	6	10	9	10	10	7.2	8.1	7.6	7.7	24.3		
	7	10	9	10	10	7.0		7.4		24.7		
25 %	0	10	10	10	10		7.1		7.9	Post: 25.5		444
	1	10	10	10	10	7.0	7.9	7.5	7.5	24.7		
	2	10	10	10	10	6.1	7.4	7.6	7.6	24.8		410
	3	10	10	10	9	5.9	7.4	7.2	7.5	24.6		
	4	10	10	10	9	6.5	7.6	7.6	7.7	24.9		409
	5	10	10	10	9	6.3	7.4	7.5	7.6	24.6		
	6	10	10	10	9	7.2	8.2	7.5	7.5	24.5		
	7	10	10	10	9	7.0		7.4		24.5		
50 %	0	10	10	10	10		7.2		7.7	Post: 25.3		522
	1	10	10	10	10	7.0	8.2	7.5	7.3	24.6		
	2	10	10	10	10	6.1	7.1	7.6	7.4	25.0		487
	3	10	10	10	10	5.9	7.5	7.3	7.3	24.8		
	4	10	10	10	10	6.5	7.9	7.6	7.4	25.0		461
	5	10	10	10	10	6.3	7.6	7.5	7.5	24.7		
	6	10	10	10	10	7.2	8.3	7.6	7.3	24.4		
	7	10	10	10	10	7.0		—		24.5		
100 %	0	10	10	10	10		8.1		7.4	Post: 25.2		681
	1	10	10	10	10	7.0	8.3	7.6	7.1	24.5		
	2	10	10	10	10	6.2	8.0	7.6	7.1	24.9		641
	3	10	10	10	10	6.8	8.1	7.4	7.0	24.8		
	4	10	10	10	10	6.5	8.3	7.6	7.1	24.9		630
	5	10	9	10	9	6.3	7.9	7.6	7.3	24.9		
	6	10	9	10	9	7.1	8.3	7.7	7.1	24.4		
	7	10	9	10	9	7.0		7.5		24.5		

✓ Indicates one organism inadvertently poured off during solution renewal, replaced into container.

Pre=Pre-renewal solutions. Post=Post-renewal solutions.

"M" = organism missing, start count reduced. "Inj" = organism injured, remove from stats.

Day 0 Temperatures = Post-renewals

"F" = fungus noted on dead organisms.

Therm ID# = Thermometer ID used for all measurements that day.

□ Aeration in test chambers begun @ _____ (Note observations on Test Organism Info sheet)

23.8

FATHEAD MINNOW 7-DAY GROWTH DATA

Client City of Cheney Tins Labeled As: Cheney
 Lab ID: B4282 Start Date: 3/19/2019
 Sample Description: _____

Technician: _____ MB
 Date: 3/25/2019
 Balance Serial #: B328543647 B328543647

Percent	Replicate	Total Weight (mg)	Tare Weight (mg)	No. of Fish
Control	A		1042.32	10
	B		1036.87	10
	C		1051.83	10
	D		1033.63	10
6.25 %	A		1039.25	9
	B		1037.23	10
	C		1021.34	10
	D		1018.53	9
12.5 %	A		1037.19	10
	B		1056.75	9
	C		1020.27	10
	D		1041.90	10
25 %	A		1017.55	10
	B		1029.63	10
	C		1035.68	10
	D		1038.86	9
50 %	A		1040.05	10
	B		1017.14	10
	C		1022.47	10
	D		1040.97	10
100 %	A		1046.15	10
	B		986.55	9
	C		1014.68	10
	D		1032.95	9
	A			
	B			
	C			
	D			

weigh to 0.01 mg

FATHEAD MINNOW 7-DAY GROWTH DATA

Client City of Cheney Tins Labeled As: Cheney

Lab ID: B4282 Start Date: 3/19/2019

Sample Description: _____

Technician:	<u>DG</u>	<u>MB</u>
Date:	<u>4/6/2019</u>	<u>3/25/2019</u>
Balance Serial #:	<u>B328543647</u>	<u>B328543647</u>

Percent	Replicate	Total Weight (mg)	Tare Weight (mg)	No. of Fish
Control	A	1048.25	1042.32	10
	B	1043.02	1036.87	10
	C	1058.70	1051.83	10
	D	1040.68	1033.63	10
6.25 %	A	1046.10	1039.25	9
	B	1044.28	1037.23	10
	C	1028.37	1021.34	10
	D	1023.20	1018.53	9 of 9
12.5 %	A	1044.68	1037.19	10
	B	1064.36	1056.75	9
	C	1026.84	1020.27	10
	D	1048.96	1041.90	10
25 %	A	1025.52	1017.55	10
	B	1037.24	1029.63	10
	C	1043.59	1035.68	10
	D	1044.77	1038.86	9
50 %	A	1048.15	1040.05	10
	B	1026.28	1017.14	10
	C	1031.26	1022.47	10
	D	1048.84	1040.97	10
100 %	A	1055.33	1046.15	10
	B	995.06	986.55	9
	C	1023.05	1014.68	10
	D	1041.99	1032.95	9
	A			
	B			
	C			
	D			

weigh to 0.01 mg

CETIS Summary Report

Report Date: 09 Apr-19 14:27 (p 1 of 2)

Test Code: B428201ppc | 16-6868-0758

Fathead Minnow 7-d Larval Survival and Growth Test

Eurofins TestAmerica - Corvallis

Batch ID: 21-0577-1546 Test Type: Growth-Survival (7d) Analyst: Brett Muckey
 Start Date: 19 Mar-19 15:10 Protocol: EPA/821/R-02-013 (2002) Diluent: Mod-Hard Synthetic Water
 Ending Date: 26 Mar-19 08:35 Species: Pimephales promelas Brine:
 Duration: 6d 17h Source: Aquatox, AR Age:

Sample ID: 21-3288-9496 Code: B4282-01 Client:
 Sample Date: 18 Mar-19 11:43 Material: Unknown Project:
 Receive Date: 19 Mar-19 10:05 Source: Cheney WWTP (WA0020842)
 Sample Age: 27h (0.1 °C) Station:

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
12-1846-3958	7d Survival Rate	100	>100	NA	7.44%	1	Steel Many-One Rank Sum Test
11-8841-1981	Mean Dry Biomass-mg	100	>100	NA	17.8%	1	Steel Many-One Rank Sum Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
03-1937-9334	Mean Dry Biomass-mg	IC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
12-1846-3958	7d Survival Rate	Control Resp	1	0.8 - NL	Yes	Passes Acceptability Criteria
03-1937-9334	Mean Dry Biomass-mg	Control Resp	0.65	0.25 - NL	Yes	Passes Acceptability Criteria
11-8841-1981	Mean Dry Biomass-mg	Control Resp	0.65	0.25 - NL	Yes	Passes Acceptability Criteria
11-8841-1981	Mean Dry Biomass-mg	PMSD	0.1782	0.12 - 0.3	Yes	Passes Acceptability Criteria

7d Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Dilution Water	4	1	1	1	1	1	0	0	0.0%	0.0%
6.25		4	0.975	0.8954	1	0.9	1	0.025	0.05	5.13%	2.5%
12.5		4	0.975	0.8954	1	0.9	1	0.025	0.05	5.13%	2.5%
25		4	0.975	0.8954	1	0.9	1	0.025	0.05	5.13%	2.5%
50		4	1	1	1	1	1	0	0	0.0%	0.0%
100		4	0.95	0.8581	1	0.9	1	0.02887	0.05774	6.08%	5.0%

Mean Dry Biomass-mg Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Dilution Water	4	0.65	0.5635	0.7365	0.593	0.705	0.02718	0.05437	8.36%	0.0%
6.25		4	0.653	0.51	0.7959	0.5189	0.705	0.04492	0.08984	13.76%	-0.46%
12.5		4	0.7182	0.6432	0.7933	0.657	0.761	0.02359	0.04717	6.57%	-10.5%
25		4	0.735	0.5802	0.8898	0.591	0.797	0.04864	0.09728	13.24%	-13.08%
50		4	0.8475	0.7534	0.9416	0.787	0.914	0.02955	0.05911	6.98%	-30.38%
100		4	0.8775	0.8146	0.9404	0.837	0.918	0.01976	0.03952	4.5%	-35.0%

CETIS Summary Report

Report Date: 09 Apr-19 14:27 (p 2 of 2)

Test Code: B428201ppc | 16-6868-0758

Fathead Minnow 7-d Larval Survival and Growth Test

Eurofins TestAmerica - Corvallis

7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	1	1	1
6.25		0.9	1	1	1
12.5		1	0.9	1	1
25		1	1	1	0.9
50		1	1	1	1
100		1	0.9	1	0.9

Mean Dry Biomass-mg Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	0.593	0.615	0.687	0.705
6.25		0.685	0.705	0.703	0.5189
12.5		0.749	0.761	0.657	0.706
25		0.797	0.761	0.791	0.591
50		0.81	0.914	0.879	0.787
100		0.918	0.851	0.837	0.904

7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	10/10	10/10	10/10	10/10
6.25		9/10	10/10	10/10	9/9
12.5		10/10	9/10	10/10	10/10
25		10/10	10/10	10/10	9/10
50		10/10	10/10	10/10	10/10
100		10/10	9/10	10/10	9/10

CETIS Analytical Report

Report Date: 09 Apr-19 14:27 (p 1 of 4)

Test Code: B428201ppc | 16-6868-0758

Fathead Minnow 7-d Larval Survival and Growth Test

Eurofins TestAmerica - Corvallis

Analysis ID: 12-1846-3958	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.8.8
Analyzed: 09 Apr-19 14:26	Analysis: Nonparametric-Control vs Treatments	Official Results: Yes
Batch ID: 21-0577-1546	Test Type: Growth-Survival (7d)	Analyst: Brett Muckey
Start Date: 19 Mar-19 15:10	Protocol: EPA/821/R-02-013 (2002)	Diluent: Mod-Hard Synthetic Water
Ending Date: 26 Mar-19 08:35	Species: Pimephales promelas	Brine:
Duration: 6d 17h	Source: Aquatox, AR	Age:
Sample ID: 21-3288-9496	Code: B4282-01	Client:
Sample Date: 18 Mar-19 11:43	Material: Unknown	Project:
Receive Date: 19 Mar-19 10:05	Source: Cheney WWTP (WA0020842)	
Sample Age: 27h (0.1 °C)	Station:	

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	7.44%	100	>100	NA	1

Steel Many-One Rank Sum Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Dilution Water		6.25	16	10	1	6	0.6105	Asymp	Non-Significant Effect
		12.5	16	10	1	6	0.6105	Asymp	Non-Significant Effect
		25	16	10	1	6	0.6105	Asymp	Non-Significant Effect
		50	18	10	1	6	0.8333	Asymp	Non-Significant Effect
		100	14	10	1	6	0.3451	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01894623	0.003789246	5	0.7962	0.5665	Non-Significant Effect
Error	0.08566787	0.004759327	18			
Total	0.1046141		23			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	1.182	4.248	0.3564	Equal Variances
Variances	Levene Equality of Variance	5.949	4.248	0.0020	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8317	0.884	0.0010	Non-normal Distribution

7d Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	4	1	1	1	1	1	1	0	0.0%	0.0%
6.25		4	0.975	0.8954	1	1	0.9	1	0.025	5.13%	2.5%
12.5		4	0.975	0.8954	1	1	0.9	1	0.025	5.13%	2.5%
25		4	0.975	0.8954	1	1	0.9	1	0.025	5.13%	2.5%
50		4	1	1	1	1	1	1	0	0.0%	0.0%
100		4	0.95	0.8581	1	0.95	0.9	1	0.02887	6.08%	5.0%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	4	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	0.0%
6.25		4	1.369	1.242	1.497	1.408	1.249	1.412	0.04007	5.85%	3.04%
12.5		4	1.371	1.242	1.501	1.412	1.249	1.412	0.04074	5.94%	2.89%
25		4	1.371	1.242	1.501	1.412	1.249	1.412	0.04074	5.94%	2.89%
50		4	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	0.0%
100		4	1.331	1.181	1.48	1.331	1.249	1.412	0.04705	7.07%	5.77%

CETIS Analytical Report

Report Date: 09 Apr-19 14:27 (p 2 of 4)

Test Code: B428201ppc | 16-6868-0758

Fathead Minnow 7-d Larval Survival and Growth Test

Eurofins TestAmerica - Corvallis

Analysis ID: 12-1846-3958

Endpoint: 7d Survival Rate

CETIS Version: CETISv1.8.8

Analyzed: 09 Apr-19 14:26

Analysis: Nonparametric-Control vs Treatments

Official Results: Yes

7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	1	1	1
6.25		0.9	1	1	1
12.5		1	0.9	1	1
25		1	1	1	0.9
50		1	1	1	1
100		1	0.9	1	0.9

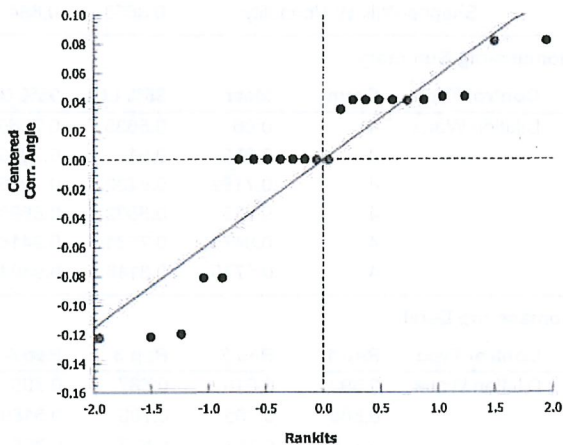
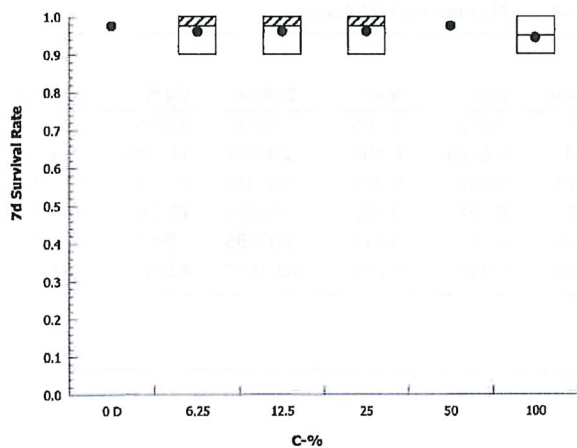
Angular (Corrected) Transformed Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1.412	1.412	1.412	1.412
6.25		1.249	1.412	1.412	1.403
12.5		1.412	1.249	1.412	1.412
25		1.412	1.412	1.412	1.249
50		1.412	1.412	1.412	1.412
100		1.412	1.249	1.412	1.249

7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	10/10	10/10	10/10	10/10
6.25		9/10	10/10	10/10	9/9
12.5		10/10	9/10	10/10	10/10
25		10/10	10/10	10/10	9/10
50		10/10	10/10	10/10	10/10
100		10/10	9/10	10/10	9/10

Graphics



CETIS Analytical Report

Report Date: 09 Apr-19 14:27 (p 3 of 4)

Test Code: B428201ppc | 16-6868-0758

Fathead Minnow 7-d Larval Survival and Growth Test

Eurofins TestAmerica - Corvallis

Analysis ID: 11-8841-1981	Endpoint: Mean Dry Biomass-mg	CETIS Version: CETISv1.8.8
Analyzed: 09 Apr-19 14:26	Analysis: Nonparametric-Control vs Treatments	Official Results: Yes
Batch ID: 21-0577-1546	Test Type: Growth-Survival (7d)	Analyst: Brett Muckey
Start Date: 19 Mar-19 15:10	Protocol: EPA/821/R-02-013 (2002)	Diluent: Mod-Hard Synthetic Water
Ending Date: 26 Mar-19 08:35	Species: Pimephales promelas	Brine:
Duration: 6d 17h	Source: Aquatox, AR	Age:
Sample ID: 21-3288-9496	Code: B4282-01	Client:
Sample Date: 18 Mar-19 11:43	Material: Unknown	Project:
Receive Date: 19 Mar-19 10:05	Source: Cheney WWTP (WA0020842)	
Sample Age: 27h (0.1 °C)	Station:	

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	17.8%	100	>100	NA	1

Steel Many-One Rank Sum Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Dilution Water		6.25	18.5	10	1	6	0.8729	Asymp	Non-Significant Effect
		12.5	24	10	0	6	0.9989	Asymp	Non-Significant Effect
		25	22	10	0	6	0.9908	Asymp	Non-Significant Effect
		50	26	10	0	6	0.9999	Asymp	Non-Significant Effect
		100	26	10	0	6	0.9999	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1854029	0.03708059	5	8.011	0.0004	Significant Effect
Error	0.08331484	0.004628602	18			
Total	0.2687178		23			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	3.392	15.09	0.6397	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8658	0.884	0.0044	Non-normal Distribution

Mean Dry Biomass-mg Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	4	0.65	0.5635	0.7365	0.651	0.593	0.705	0.02718	8.36%	0.0%
6.25		4	0.653	0.51	0.7959	0.694	0.5189	0.705	0.04492	13.76%	-0.46%
12.5		4	0.7182	0.6432	0.7933	0.7275	0.657	0.761	0.02359	6.57%	-10.5%
25		4	0.735	0.5802	0.8898	0.776	0.591	0.797	0.04864	13.24%	-13.08%
50		4	0.8475	0.7534	0.9416	0.8445	0.787	0.914	0.02955	6.98%	-30.38%
100		4	0.8775	0.8146	0.9404	0.8775	0.837	0.918	0.01976	4.5%	-35.0%

Mean Dry Biomass-mg Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	0.593	0.615	0.687	0.705
6.25		0.685	0.705	0.703	0.5189
12.5		0.749	0.761	0.657	0.706
25		0.797	0.761	0.791	0.591
50		0.81	0.914	0.879	0.787
100		0.918	0.851	0.837	0.904

CETIS Analytical Report

Report Date: 09 Apr-19 14:27 (p 4 of 4)

Test Code: B428201ppc | 16-6868-0758

Fathead Minnow 7-d Larval Survival and Growth Test

Eurofins TestAmerica - Corvallis

Analysis ID: 11-8841-1981

Endpoint: Mean Dry Biomass-mg

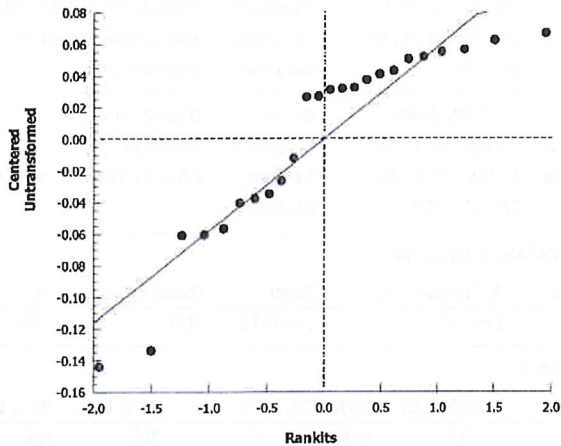
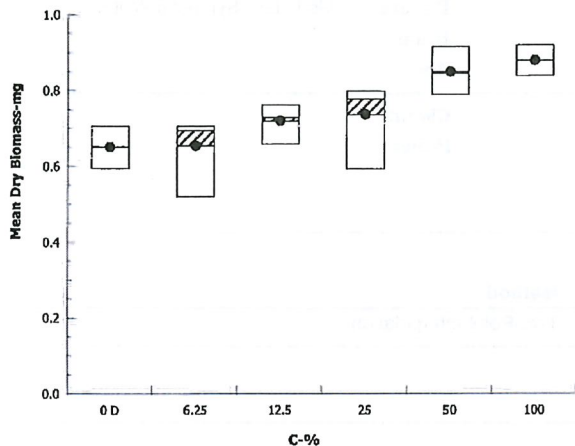
CETIS Version: CETISv1.8.8

Analyzed: 09 Apr-19 14:26

Analysis: Nonparametric-Control vs Treatments

Official Results: Yes

Graphics



CETIS Analytical Report

Report Date: 09 Apr-19 14:27 (p 1 of 1)
Test Code: B428201ppc | 16-6868-0758

Fathead Minnow 7-d Larval Survival and Growth Test

Eurofins TestAmerica - Corvallis

Analysis ID: 03-1937-9334	Endpoint: Mean Dry Biomass-mg	CETIS Version: CETISv1.8.8
Analyzed: 09 Apr-19 14:26	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes
Batch ID: 21-0577-1546	Test Type: Growth-Survival (7d)	Analyst: Brett Muckey
Start Date: 19 Mar-19 15:10	Protocol: EPA/821/R-02-013 (2002)	Diluent: Mod-Hard Synthetic Water
Ending Date: 26 Mar-19 08:35	Species: Pimephales promelas	Brine:
Duration: 6d 17h	Source: Aquatox, AR	Age:
Sample ID: 21-3286-9496	Code: B4282-01	Client:
Sample Date: 18 Mar-19 11:43	Material: Unknown	Project:
Receive Date: 19 Mar-19 10:05	Source: Cheney WWTP (WA0020842)	
Sample Age: 27h (0.1 °C)	Station:	

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Log(X+1)	Linear	1488612	200	Yes	Two-Point Interpolation

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
IC25	>100	N/A	N/A	<1	NA	NA

Mean Dry Biomass-mg Summary

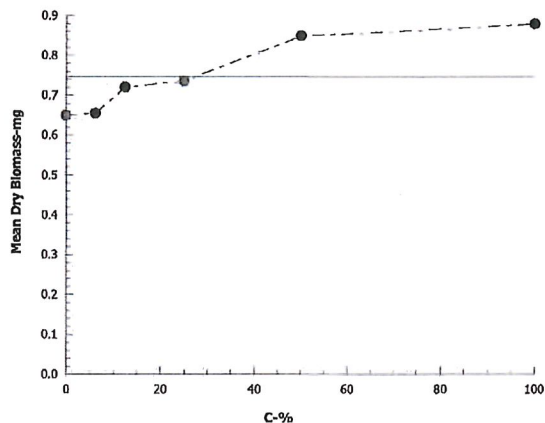
Calculated Variate

C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Dilution Water	4	0.65	0.593	0.705	0.02718	0.05437	8.36%	0.0%
6.25		4	0.653	0.5189	0.705	0.04492	0.08984	13.76%	-0.46%
12.5		4	0.7182	0.657	0.761	0.02359	0.04717	6.57%	-10.5%
25		4	0.735	0.591	0.797	0.04864	0.09728	13.24%	-13.08%
50		4	0.8475	0.787	0.914	0.02955	0.05911	6.98%	-30.38%
100		4	0.8775	0.837	0.918	0.01976	0.03952	4.5%	-35.0%

Mean Dry Biomass-mg Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	0.593	0.615	0.687	0.705
6.25		0.685	0.705	0.703	0.5189
12.5		0.749	0.761	0.657	0.706
25		0.797	0.761	0.791	0.591
50		0.81	0.914	0.879	0.787
100		0.918	0.851	0.837	0.904

Graphics



APPENDIX B
REFERENCE TOXICANT DATA SHEETS

REFERENCE TOXICANT DATA SHEET

Client	QA/QC	Reference Toxicant	NaCl	Test Begin: Date	3-6-19	Time	1345
Test Organism	<i>Ceriodaphnia dubia</i>	Stock Solution	20 g/L	Test End: Date	3-8-19	Time	1130
Source	In-House culture	Solvent	Milli-Q water	Reagent Log ID #	2-B 072-01		
ID#	CD 3536	*Dilution Water Type	Recon MH (FHM)	Dilution Water ID#	4872		
Age	< 24 hours	Total Hardness as CaCO ₃	81	Total Alkalinity as CaCO ₃	76		
Feeding:	none	Conductivity (µmhos/cm)	327	Temperature (°C)	20 ± 1 °C		
Test Chamber Size	30 ml	Technician	MB	48 hr	MB		
Volume per Replicate	25 ml	Time	1345	48 hr	MB		
		Therm. ID #	252	48 hr	MB		

Toxicant Concentration (g/L)	Test Chamber Number	Number of Live Organisms			Dissolved Oxygen (mg/l)			pH			Temperature (°C)			Conductivity (µS)		
		0	24	48	0	24	48	0	24	48	0	24	48	0	24	48
Control	A	5	5	5	7.9	—	8.5	7.9	—	8.2	19.9	19.8	19.6	330	—	374
	B	5	5	5	—	—	—	—	—	—	—	—	—	—	—	—
1.0	A	5	5	5	8.0	—	8.5	7.8	—	8.2	19.8	19.8	19.4	2310	—	2350
	B	5	5	5	—	—	—	—	—	—	—	—	—	—	—	—
1.5	A	5	5	5	8.1	—	8.6	7.9	—	8.2	19.8	19.8	19.6	3290	—	3330
	B	5	5	5	—	—	—	—	—	—	—	—	—	—	—	—
2.0	A	5	5	4	8.2	—	8.5	7.9	—	8.1	19.8	19.6	19.7	4250	—	5390
	B	5	5	3	—	—	—	—	—	—	—	—	—	—	—	—
3.0	A	5	2	0	8.3	—	8.6	7.9	—	8.6	20.0	19.5	19.7	6050	—	6210
	B	5	1	0	—	—	—	—	—	—	—	—	—	—	—	—
4.0	A	5	0	—	8.3	7.9	—	7.9	7.5	—	20.0	19.5	—	7710	—	—
	B	5	0	—	—	—	—	—	—	—	—	—	—	—	—	—
Test Acceptability Criteria:		Survival in Controls: > or = 90%			(@ 20°C): >4.0 and <9.1			pH: > 6.0 and <9.0			Temperature + 1 °C					

*Dilution Water Code
 Recon. - reconstituted water
 S - soft
 MH - moderately hard
 H - hard
 Art. Sea - Artificial Sea Water

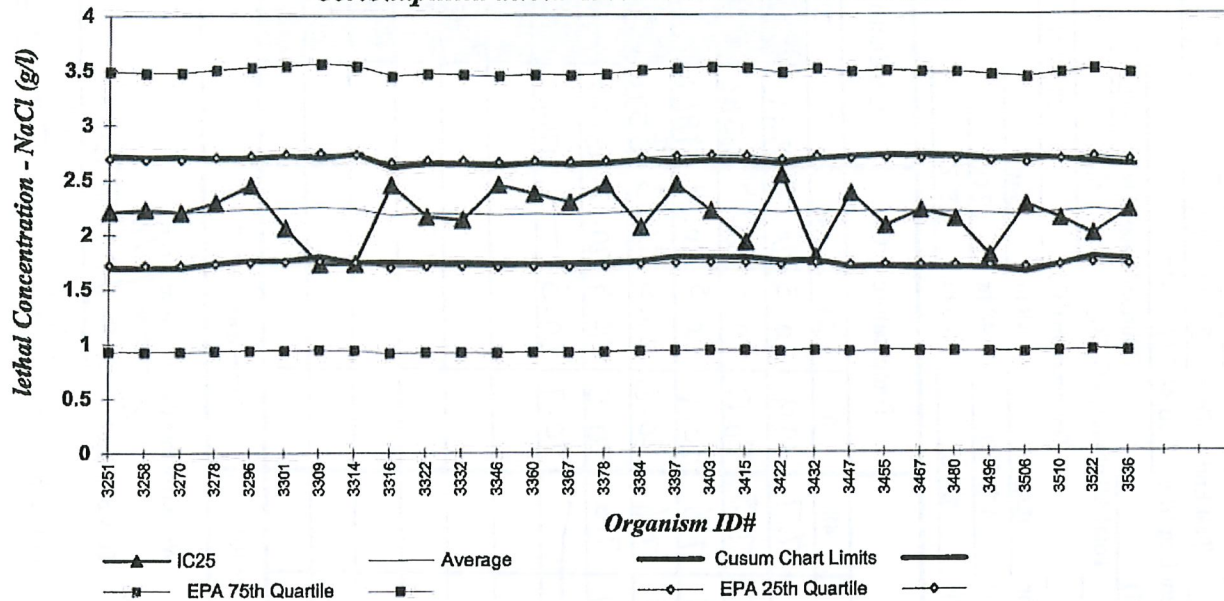
We verify this data is true and correct.

Task Manager Lead
 Project Manager MB
 QA Officer Anti-Standing for Lynn McMuris
 3-14-19

48 Hour LC₅₀ 2.21
 Cusum Chart Limits 1.76 to 2.62
 Statistical Method Spearmen-Kärber

REFTOX - Cerio acute.XLS
 Doc Control ID: ASL670-0510

REFERENCE TOXICANT CUMULATIVE SUMMARY (CUSUM) CHART
Ceriodaphnia dubia Acute Survival - LC50 Values



***Ceriodaphnia dubia* - ACUTE (EPA Test Method 2002.0)**

SODIUM CHLORIDE (g/L)

Endpoint: 48 hour Survival

Stats Method: Probit, Spearman-Kärber, Linear Interpolation

Test Conditions: Recon MH, 20 oC

From EPA 833-R-00-003:

10th Quartile CV (control limit) = 0.06

25th Quartile CV (warning limit) = 0.11

75th Quartile CV (warning limit) = 0.29

90th Quartile CV (control limit) = 0.34

Intralab CV is compared to EPA Warning limits (25th and 75th CV's) and Control limits (10th and 90th CV's).

If lab CV is outside EPA Control limits, the EPA Control limits are used to set Cusum chart limits.

Event #	Cerio ID #	Test Start Date	LC50	Running Average	Running SD	Cusum Chart Limits		Intralab CV
						AVG-2SD	AVG+2SD	
156	3415	04/09/18	1.92	2.2	0.22	1.78	2.66	0.10
157	3422	05/01/18	2.54	2.2	0.22	1.75	2.64	0.10
158	3432	06/01/18	1.78	2.2	0.23	1.75	2.68	0.11
159	3447	07/24/18	2.37	2.2	0.25	1.69	2.70	0.12
160	3455	08/07/18	2.07	2.2	0.25	1.69	2.71	0.12
161	3467	09/05/18	2.21	2.2	0.26	1.68	2.71	0.12
162	3480	10/05/18	2.13	2.2	0.26	1.68	2.71	0.11
163	3496	11/06/18	1.79	2.2	0.25	1.68	2.68	0.12
164	3506	12/19/18	2.26	2.2	0.26	1.64	2.69	0.11
165	3510	01/09/19	2.13	2.2	0.24	1.71	2.67	0.10
166	3522	02/01/19	1.99	2.2	0.22	1.78	2.65	0.10
167	3536	03/06/19	2.21	2.2	0.21	1.76	2.62	0.10

Client	QA/QC	Reference Toxicant	NaCl	Test Begin: Date	Time
Test Organism	<i>Pimephales promelas</i>	Stock Solution	20 g/L	Date	1200
Source	<i>A44.572x</i>	Solvent	Milli-Q water	Test End: Date	1200
ID#	FHM 02037	*Dilution Water Type	Recon MH (FHM)	Reagent Log ID #	2B074-09
Age	2 days	Total Hardness as CaCO ₃	90	Dilution Water ID#	4817
Feeding:	none	Conductivity (µmhos/cm)	351	Total Alkalinity as CaCO ₃	66
Test Chamber Size	800 ml	Technician	Dr/MB	Temperature (°C)	20 ± 1 °C
Volume per Replicate	750 ml	Time	1200	48 hr	34M
		Therm. ID #	252	48 hr	1200
				48 hr	252

Toxicant Concentration (g/L)	Test Chamber Number	Number of Live Organisms			Dissolved Oxygen (mg/l)			pH			Temperature (°C)			Conductivity (µS)					
		0	24	48	0	24	48	0	24	48	0	24	48	0	24	48			
Control	A	10	10	10	7.9	8.1	8.0	7.5	7.8	7.7	19.9	20.3	20.5	341		344			
4.0	A	10	10	10	8.2	8.1	8.0	7.4	7.8	7.5	20.0	20.5	20.4	6586		6790			
6.0	A	10	10	10	8.2	8.2	8.1	7.5	7.8	7.6	20.1	20.5	20.4	9860		9850			
8.0	A	10	8	7	8.3	8.3	8.2	7.6	7.7	7.6	20.3	20.5	20.3	10570		12680			
10.0	A	10	5	1	8.3	8.3	8.2	7.7	7.7	7.6	20.5	20.4	20.3	15180		15170			
12.0	A	10	0	—	8.4	8.3	—	7.6	7.7	—	20.7	20.3	—	17240		—			
Test Acceptability Criteria:		Survival in Controls: > 90%						pH: > 6.0 and < 9.0						Temperature ± 1 °C					

*Dilution Water Code
Recon. - reconstituted water
S - soft
MH - moderately hard
H - hard
Art. Sea - Artificial Sea Water

We verify this data is true and correct.

48 Hour LC₅₀

Cusum Chart Limits

Art. Sea - Artificial Sea Water

50

5.7 to 5.8

057

Task Manager.

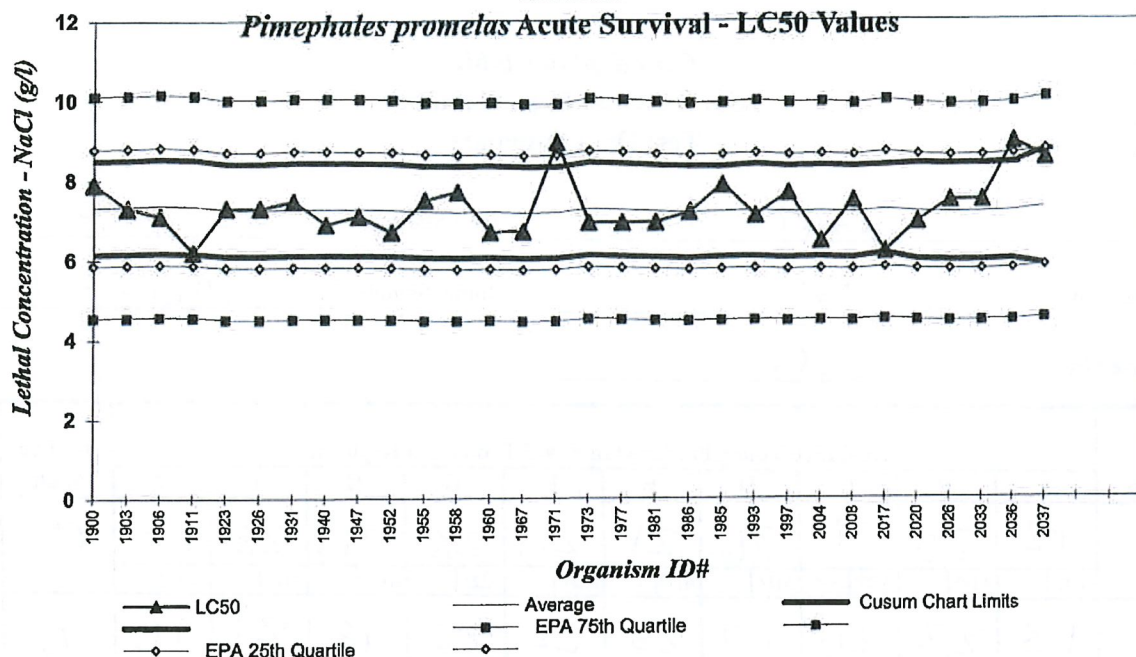
Project Manager

QA Officer

REFTOX - FHM acute.XLS
Doc Control ID: ASL674-0510

REFERENCE TOXICANT CUMLATIVE SUMMARY (CUSUM)

CHART



Pimephales promelas - ACUTE (EPA Test Method 2000.0)

SODIUM CHLORIDE (g/L)

From EPA 833-R-00-003:

Organism age: 1 to 14 days

10th Quartile CV (control limit) = 0.08

Endpoint: 48 hour Survival

25th Quartile CV (warning limit) = 0.10

Stats Method: Probit, Spearman-Kärber, Linear Interpolation

75th Quartile CV (warning limit) = 0.19

Test Conditions: Recon MH, 20 °C

90th Quartile CV (control limit) = 0.33

Intralab CV is compared to EPA Warning limits (25th and 75th CV's) and Control limits (10th and 90th CV's).

If lab CV is outside EPA Control limits, the EPA Control limits are used to set Cusum chart limits.

Event #	FHM ID #	Test Start Date	LC50	Running Average	Running SD	Cusum Chart Limits		Intralab CV
						AVG-2SD	AVG+2SD	
911	1971	3/6/2018	8.9	7.2	0.42	6.0	8.3	0.08
912	1973	3/16/2018	6.9	7.3	0.57	6.1	8.4	0.08
913	1977	4/4/2018	6.9	7.3	0.58	6.1	8.4	0.08
914	1981	5/2/2018	6.9	7.2	0.57	6.1	8.4	0.08
915	1986	6/6/2018	7.2	7.2	0.57	6.0	8.3	0.08
916	1985	6/1/2018	7.9	7.2	0.57	6.1	8.3	0.08
917	1993	7/10/2018	7.1	7.2	0.58	6.1	8.4	0.08
918	1997	8/1/2018	7.7	7.2	0.56	6.0	8.3	0.08
919	2004	9/5/2018	6.5	7.2	0.57	6.1	8.4	0.08
920	2008	10/5/2018	7.5	7.2	0.60	6.0	8.3	0.08
921	2017	11/9/2018	6.2	7.2	0.55	6.1	8.4	0.08
922	2020	12/5/2018	6.9	7.2	0.60	6.0	8.4	0.08
923	2026	1/15/2019	7.5	7.2	0.60	6.0	8.4	0.08
924	2033	2/14/2019	7.5	7.2	0.60	6.0	8.4	0.08
925	2036	3/6/2019	8.9	7.2	0.60	6.0	8.4	0.10
926	2037	3/15/2019	8.5	7.3	0.72	5.9	8.7	0.10
927								
928								
929								

Ceriodaphnia dubia
Survival and Reproduction
Test Data Summary

Client QA / QC Test Start Date 3-5-19
 Sample Description NaCl Initial Sample ID# 2B068-06
 Data summarized by MB

Percent or Concentration	Total Live Young Produced in First 3 Broods per Replicate										# Alive Adults	Total Live Young
	A	B	C	D	E	F	G	H	I	J		
Control	12	20	7	36	21	24	28	26	28	10	9	212
	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>		
0.25 g/L	13	22	26	17	25	22	22	19	21	16	10	197
	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>		
0.50 g/L	20	17	15	22	21	19	20	20	21	11	10	186
	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>		
1.0 g/L	7	7	7	10	11	12	14	3	7	11	8	89
	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>		
1.5 g/L	3	6	1	7	3	0	0	7	6	0	7	33
	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>	AD? <input type="checkbox"/>		
2.0 g/L	0	0	0	0	0	0	0	0	0	0	0	0
	AD? <input checked="" type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input checked="" type="checkbox"/>		
4.0 g/L	0	0	0	0	0	0	0	0	0	0	0	0
	AD? <input checked="" type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input checked="" type="checkbox"/>	AD? <input checked="" type="checkbox"/>		

Test Organism Mortality (Adult dead) = ☐ AD? ☒

of Alive Adults = Number of test organism alive at termination

Test Organism identified as Male = ☐ AD? ☐ M

Total Live Young = Total neonates produced in first 3 broods

Test Organism Injured during test = ☐ AD? ☐ I

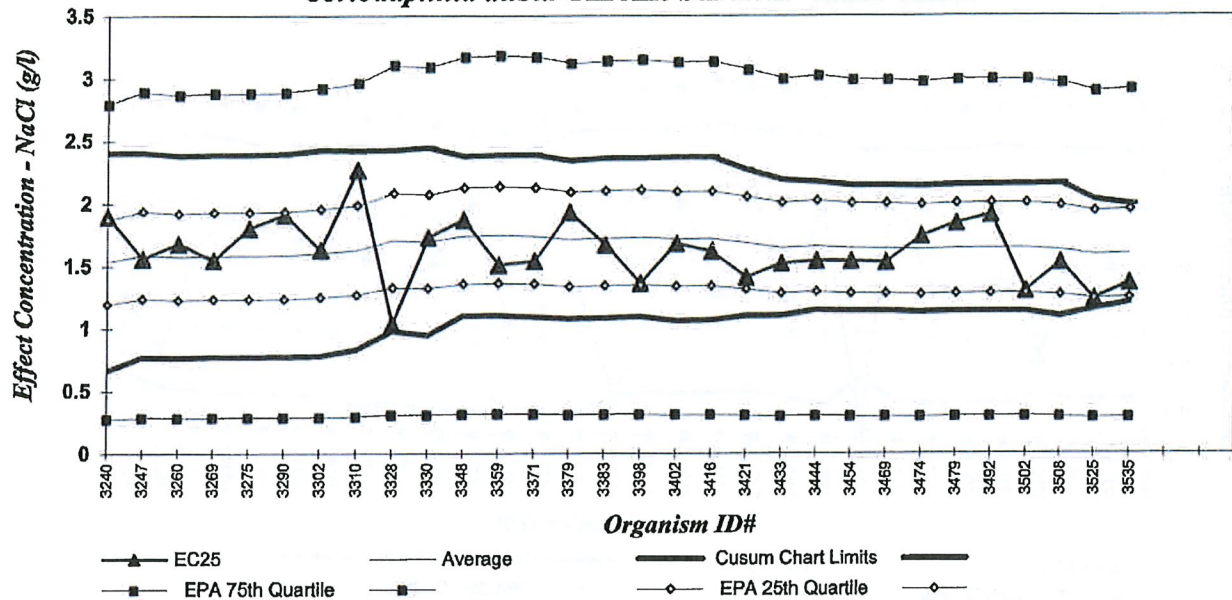
Footnote: As per EPA-600-4-91-002 and EPA-821-R-02-013, *Ceriodaphnia dubia* test should be terminated when 60% of the surviving control organisms have produced their third brood, or at the end of eight days, whichever occurs first.

Also as per EPA-821-R-02-013 (13.10.9.1), "In this three-brood test, offspring from fourth or higher broods should not be counted and should not be included in the total number of neonates produced during the test."

Endpoint	Value	Cusum Chart Limits
Survival - EC ₂₅	<u>1.36</u>	<u>1.21 to 1.99</u>
Reproduction - IC ₂₅	<u>0.63</u>	<u>0.31 to 1.21</u>

Task Manager [Signature]
 Project Manager [Signature]
 QA Officer [Signature] 3-19-19

REFERENCE TOXICANT CUMULATIVE SUMMARY (CUSUM) CHART
***Ceriodaphnia dubia* Chronic Survival - EC25 Values**



***Ceriodaphnia dubia* - Chronic (EPA Test Method 1002.0)**

SODIUM CHLORIDE (g/L)

Endpoint: Chronic Survival

Stats Method: Linear Interpolation

Test Conditions: Recon.MH, 25 oC

From EPA 833-R-00-003:

10th Quartile CV (control limit) = 0.07

25th Quartile CV (warning limit) = 0.11

75th Quartile CV (warning limit) = 0.41

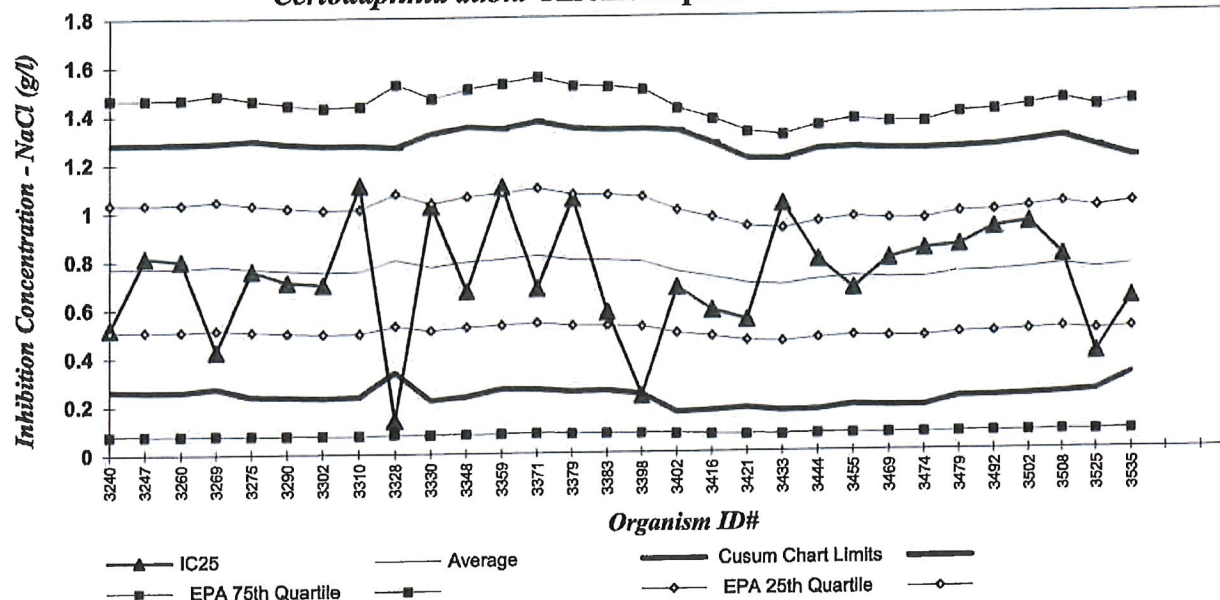
90th Quartile CV (control limit) = 0.81

Intralab CV is compared to EPA Warning limits (25th and 75th CV's) and Control limits (10th and 90th CV's).

If lab CV is outside EPA Control limits, the EPA Control limits are used to set Cusum chart limits.

Event #	Cerio ID #	Test Start Date	EC25	Running Average	Running SD	Cusum Chart Limits		Intralab CV
						AVG-2SD	AVG+2SD	
327	3433	06/05/18	1.52	1.64	0.27	1.10	2.19	0.15
328	3444	07/10/18	1.54	1.66	0.26	1.15	2.17	0.15
329	3454	08/07/18	1.54	1.64	0.25	1.14	2.14	0.15
330	3469	09/07/18	1.53	1.64	0.25	1.14	2.14	0.15
331	3474	09/20/18	1.74	1.63	0.25	1.13	2.14	0.15
332	3479	10/04/18	1.84	1.64	0.25	1.14	2.15	0.15
333	3492	10/30/18	1.91	1.64	0.25	1.13	2.15	0.15
334	3502	12/11/18	1.30	1.64	0.25	1.13	2.15	0.16
335	3508	01/08/19	1.53	1.63	0.27	1.10	2.16	0.14
336	3525	02/08/19	1.24	1.59	0.22	1.15	2.03	0.12
337	3535	03/05/19	1.36	1.60	0.20	1.21	1.99	0.13
338								
339								

REFERENCE TOXICANT CUMULATIVE SUMMARY (CUSUM) CHART
***Ceriodaphnia dubia* Chronic Reproduction - IC25 Values**



***Ceriodaphnia dubia* - Chronic (EPA Test Method 1002.0)**

SODIUM CHLORIDE (g/L)

Endpoint: Chronic Reproduction

Stats Method: Linear Interpolation

Test Conditions: Recon MH, 25 oC

From EPA 833-R-00-003:

10th Quartile CV (control limit) = 0.08

25th Quartile CV (warning limit) = 0.17

75th Quartile CV (warning limit) = 0.45

90th Quartile CV (control limit) = 0.62

Intralab CV is compared to EPA Warning limits (25th and 75th CV's) and Control limits (10th and 90th CV's).

If lab CV is outside EPA Control limits, the EPA Control limits are used to set Cusum chart limits.

Event #	Cerio ID #	Test Start Date	IC25	Running Average	Running SD	Cusum Chart Limits		Intralab CV
						AVG-2SD	AVG+2SD	
330	3469	9/7/2018	0.79	0.71	0.27	0.18	1.24	0.37
331	3474	9/20/2018	0.83	0.71	0.27	0.18	1.24	0.35
332	3479	10/4/2018	0.84	0.73	0.26	0.22	1.25	0.35
333	3492	10/30/2018	0.92	0.74	0.26	0.22	1.25	0.35
334	3502	12/11/2018	0.94	0.75	0.26	0.22	1.27	0.35
335	3508	01/08/19	0.80	0.76	0.26	0.23	1.29	0.34
336	3525	2/8/2019	0.40	0.74	0.25	0.24	1.25	0.30
337	3535	3/5/2019	0.63	0.76	0.22	0.31	1.21	0.29
338								
339								

Random Template Used: 6 conc. x 4 reps. # 7

Waterbath/incubator Used:

Date Initiated 3/5/2019 Time 13:50

Stock Sol. ID 2B074-04

4

Date Terminated 3/12/2019 Time 09:25

Organism ID: FHM 20360

Test Container Size: 800 ml

Solution Volume / rep: 500 ml

Client QA/QC - RefTox

Sample Description

KCl (50 g/L stock)

Tech: Day 0 MB Day 1 MB Day 2 MB Day 3 MB Day 4 MB Day 5 MB Day 6 MB Day 7 MB
 Time Day 0 1350 Day 1 1255 Day 2 1230 Day 3 0950 Day 4 1425 Day 5 1450 Day 6 1130 Day 7 0925

Conc. or Percent	Day	Number of Live Organisms				Dissolved O ₂ (mg/l)		pH		Temp. (°C)	Therm. ID #	Conductivity (µS)
		A	B	C	D	Pre	Post	Pre	Post	Pre		Post (daily)
Control	0	10	10	10	10		7.9		7.6	25.1	251	324
	1	10	10	9	10	6.8	7.7	7.5	7.9	25.3	254	329
	2	10	10	9	10	7.4	7.6	7.4	7.9	24.7	254	341
	3	10	10	9	10	7.6	7.9	7.6	7.9	25.2	255	330
	4	10	10	9	10	6.3	6.7	7.2	7.9	24.9	252	357
	5	10	10	9	10	6.5	7.6	7.3	8.0	25.1	252	333
	6	10	10	9	10	7.5	8.0	7.3	7.9	25.5	252	343
0.25 g/L	0	10	10	10	10		7.9		7.7	25.1		800
	1	10	10	9	10	7.0	7.9	7.5	7.9	25.3		780
	2	9	9	9	10	7.2	7.8	7.5	8.8.1	24.7		769
	3	9	9	9	10	7.5	8.0	7.6	8.0	25.1		806
	4	9	9	9	10	6.4	7.5	7.1	7.9	24.9		816
	5	9	9	9	10	6.6	7.8	7.4	8.1	25.3		818
	6	9	9	9	10	7.4	8.1	7.3	8.0	25.6		834
0.50 g/L	0	10	10	10	10		8.1		7.8	25.0		1770
	1	10	10	10	10	6.9	8.1	7.5	7.9	25.2		1273
	2	10	10	10	10	7.0	7.9	7.6	8.1	24.8		1276
	3	10	10	10	10	7.5	8.0	7.7	8.0	25.1		1266
	4	10	10	9	9	6.4	7.3	7.2	7.9	25.0		1296
	5	10	10	9	9	6.6	7.9	7.4	8.1	25.2		1223
	6	10	10	9	9	7.0	8.2	7.4	8.0	25.6		1300
1.0 g/L	0	10	10	10	10		8.2		7.9	25.1		2110
	1	8	3	5	5	6.9	8.1	7.6	7.9	25.3		2180
	2	5	0	2	5	6.9	7.9	7.6	8.2	24.8		2190
	3	5		2	5	7.5	8.0	7.7	8.1	25.2		2190
	4	5		2	3	6.4	7.1	7.3	8.0	25.1		2150
	5	3		2	3	6.5	7.9	7.5	8.2	25.3		2140
	6	2		2	2	6.9	8.2	7.5	8.0	25.6		2195
2.0 g/L	0	10	10	10	10		8.1		7.9	25.1		3990
	1	0	0	0	0	7.0	8.1	7.6		25.3		
	2											
	3											
	4											
	5											
	6											
4.0 g/L	0	10	10	10	10		8.0		7.9	25.0		7120
	1	0	0	0	0	7.1	8.0	7.6		25.1		
	2											
	3											
	4											
	5											
	6											

✓ Indicates one organism inadvertently poured off during solution renewal, replaced into container.

"M" = organism missing, start count reduced. "Inj" = organism injured, remove from stats.

"F" = fungus noted on dead organisms.

Pre = Pre-renewal solutions. Post = Post-renewal solutions.

Endpoint

Survival - EC₂₅

0.59

Growth - IC₂₅

0.59

Cusum Chart Limits

0.57 to 0.66

0.45 to 0.74

Therm ID# = Thermometer ID used for all measurements that day.

Day 0 Temperatures = Post-renewals

23.8 = Temp. out of recommended range

Task Manager

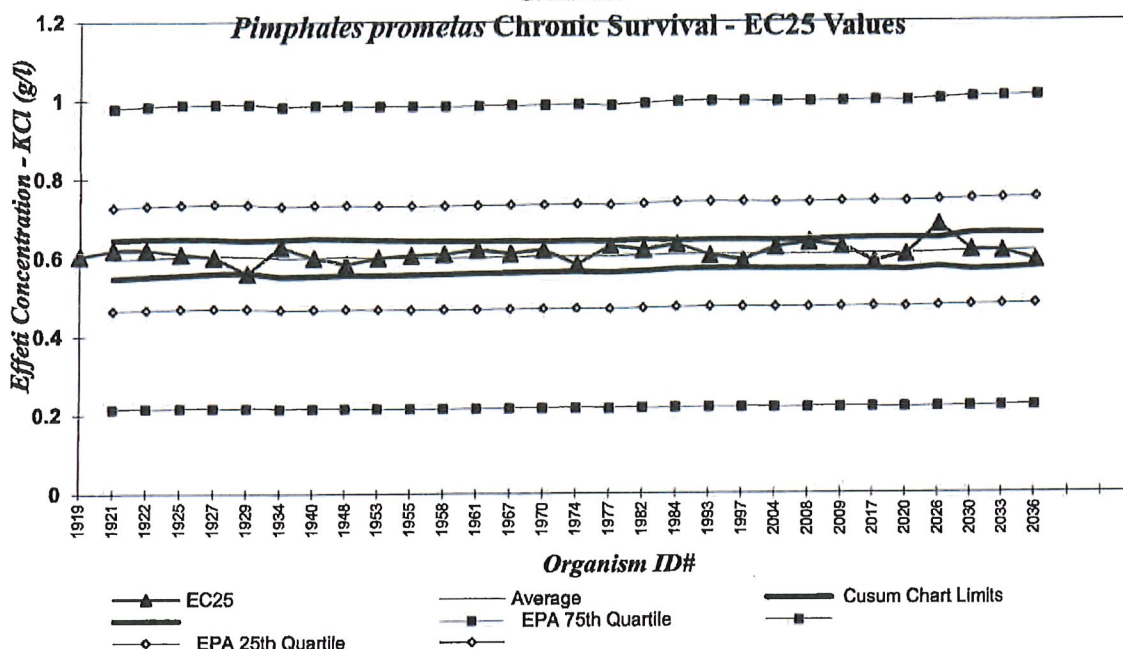
Project Manager

QA Officer

3-21-19

* Waterbath malfunction. Repair pump failure fixed 3-12-19 3pm

REFERENCE TOXICANT CUMULATIVE SUMMARY (CUSUM) CHART



Pimephales promelas - Chronic (EPA Test Method 1000.0)

POTASSIUM CHLORIDE (g/L)

From EPA 833-R-00-003:

Endpoint: Chronic Survival

10th Quartile CV (control limit) = 0.03

Stats Method: Linear Interpolation

25th Quartile CV (warning limit) = 0.11

Test Conditions: Recon MH, 25 oC

75th Quartile CV (warning limit) = 0.32

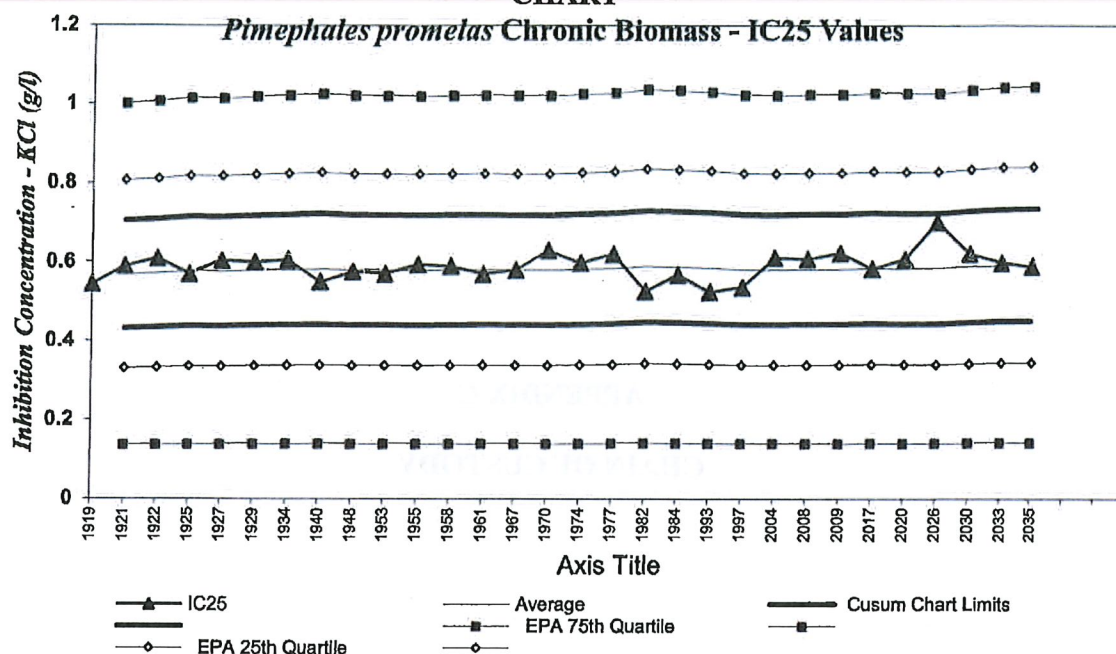
90th Quartile CV (control limit) = 0.52

Intralab CV is compared to EPA Warning limits (25th and 75th CV's) and Control limits (10th and 90th CV's).

If lab CV is outside EPA Control limits, the EPA Control limits are used to set Cusum chart limits.

Event #	FHM ID #	Test Start Date	EC25	Running Average	Running SD	Cusum Chart Limits		Intralab CV
						AVG-2SD	AVG+2SD	
20	1970	02/27/18	0.62	0.6	0.02	0.56	0.64	0.03
21	1974	03/20/18	0.58	0.6	0.02	0.56	0.64	0.03
22	1977	04/03/18	0.63	0.6	0.02	0.56	0.64	0.03
23	1982	05/02/18	0.62	0.6	0.02	0.57	0.64	0.03
24	1984	06/19/18	0.63	0.6	0.02	0.57	0.64	0.03
25	1993	07/10/18	0.61	0.6	0.02	0.57	0.64	0.03
26	1997	08/01/18	0.59	0.6	0.02	0.57	0.64	0.03
27	2004	9/6/2018	0.63	0.6	0.02	0.57	0.64	0.03
28	2008	10/2/2018	0.638	0.6	0.02	0.571	0.644	0.03
29	2009	10/4/2018	0.63	0.6	0.02	0.57	0.65	0.03
30	2017	11/6/2018	0.59	0.6	0.02	0.57	0.65	0.03
31	2020	12/4/2018	0.61	0.6	0.02	0.57	0.65	0.03
32	2026	1/15/2019	0.68	0.6	0.02	0.57	0.65	0.04
33	2030	1/29/2019	0.62	0.6	0.02	0.57	0.66	0.04
34	2033	2/12/2019	0.62	0.6	0.02	0.57	0.66	0.04
35	2036	3/5/2019	0.59	0.6	0.02	0.57	0.66	0.04

REFERENCE TOXICANT CUMULATIVE SUMMARY (CUSUM) CHART



Pimephales promelas - Chronic (EPA Test Method 1000.0)

POTASSIUM CHLORIDE (g/L)

From EPA 833-R-00-003:

Endpoint: Chronic Growth (Biomass)

10th Quartile CV (control limit) = 0.12

Stats Method: Linear Interpolation

25th Quartile CV (warning limit) = 0.21

Test Conditions: Recon MH, 25 oC

75th Quartile CV (warning limit) = 0.38

90th Quartile CV (control limit) = 0.45

Intralab CV is compared to EPA Warning limits (25th and 75th CV's) and Control limits (10th and 90th CV's).

If lab CV is outside EPA Control limits, the EPA Control limits are used to set Cusum chart limits.

Event #	FHM ID #	Test Start Date	IC25	Running Average	Running SD	Cusum Chart Limits		Intralab CV
						AVG-2SD	AVG+2SD	
22	1977	04/03/18	0.62	0.58	0.03	0.44	0.72	0.04
23	1982	05/02/18	0.53	0.59	0.02	0.45	0.73	0.05
24	1984	06/19/18	0.57	0.59	0.03	0.45	0.73	0.05
25	1993	07/10/18	0.53	0.59	0.03	0.44	0.73	0.05
26	1997	08/01/18	0.54	0.58	0.03	0.44	0.72	0.05
27	2004	9/6/2018	0.61	0.58	0.03	0.44	0.72	0.05
28	2008	10/2/2018	0.61	0.58	0.03	0.44	0.72	0.05
29	2009	10/4/2018	0.62	0.58	0.03	0.44	0.72	0.05
30	2017	11/6/2018	0.58	0.58	0.03	0.44	0.72	0.05
31	2020	12/4/2018	0.61	0.58	0.03	0.44	0.72	0.05
32	2026	1/15/2019	0.70	0.58	0.03	0.44	0.72	0.07
33	2030	1/29/2019	0.62	0.59	0.04	0.45	0.73	0.07
34	2033	2/12/2019	0.60	0.59	0.04	0.45	0.73	0.07
35	2035	3/5/2019	0.59	0.59	0.04	0.45	0.74	0.07

APPENDIX C
CHAIN OF CUSTODY

Sample Receipt Record

Batch Number: B4282-01
Client/Project: Cheney

Date Received: 3-19-19
Received By: [Signature]

Were custody seals intact?

☒ Yes ☐ No ☐ N/A

Packing Material:

☒ Ice ☐ Blue Ice ☐ Box

Temp OK? (<6°C) Therm ID: 173 Expires: 4/16/2019 Observed: 0.1°C, Actual Temp: 0.1°C

☒ Yes ☐ No ☐ N/A

Was a Chain of Custody (CoC) Provided?

☒ Yes ☐ No ☐ N/A

Was the CoC correctly filled out? (If No, document below)

☒ Yes ☐ No ☐ N/A

Were the sample containers in good condition (not broken or leaking)?

☒ Yes ☐ No ☐ N/A

Are all samples within 36 hours of collection?

☒ Yes ☐ No ☐ N/A

Method of Shipment: ☐ Hand Delivered, ☒ FedEx, ☐ UPS, ☐ Greyhound, ☐ Other: _____ ☐ N/A

Sample Exception Report (The following exceptions were noted)

Client was notified on:

Client contact:

Resolution to Exception:

CHAIN OF CUSTODY RECORD FOR NPDES COMPLIANCE BIOMONITORING

THE LEADER IN ENVIRONMENTAL TESTING

Client City of Cheney
Address 119 Anderson Rd
Cheney WA 99004

NPDES# WA0020843 Ship Samples to: PO#040223
Composite Sample Information: _____

TestAmerica ASL
Attention: Aquatic Toxicology Laboratory
1100 NE Circle Blvd, Suite 310
Corvallis, OR 97330
Phone: 541.243.6137

Samples/Hour _____ Volume/Sample _____
 Total Hours _____ Total Volume _____
 Initiated: Date _____ Time _____
 Ended: Date _____ Time _____
 Chilled During Collection _____

Contact Person: Mike Lambert
Phone: 507-498-9305

Check Chlorine (Y/N)	
Temp. Upon Arrival (°C)	
Check Ammonia (Y/N)	Dechlor

Project #

Check Ammonia (Y/N) _____ Dechlorinated (Y/N) _____
Analysis Required / Comments

[illegible]

Sampled By & Title <i>Mike Lambert WMP II</i>	(Please sign and print name) <i>Mike Lambert</i>	Date/Time <i>3-18-19 11:23</i>	Relinquished By <i>Mike Lambert</i>	(Please sign and print name) <i>Mike Lambert</i>	Date/Time <i>3-18-19</i>
Received By <i>[Signature]</i>	(Please sign and print name) <i>Mike Lambert</i>	Date/Time <i>3-19-19 1:05</i>	Relinquished By	(Please sign and print name)	Date/Time
Received By	(Please sign and print name)	Date/Time	Relinquished By	(Please sign and print name)	Date/Time
Received By	(Please sign and print name)	Date/Time	Shipped Via	UPS Bis Fed-Ex Hand Other	Shipping #
Work Authorized By	(Please sign and print name)	Remarks	COC_Bioassay.xls Doc Control ID: ASL612-0717		

CHENEY, - WA 99024
UNITED STATES US

BILL SENDER

CORVALIS OR 97330

(541) 243-61 37
INV: PKG ID: 1 B129J
PO:

REF: CINDY NIEMEIER

DEPT



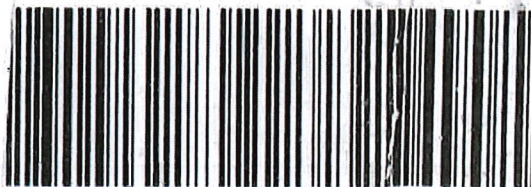
TRV:

0048 9286

TUE - 19 MAR 12:00P
PRIORITY OVERNIGHT

CVOA

97330
OR-US PDX



TERSE regarding UPS terms, and notice of limitation of liability. Where allowed by law, shipper authorizes UPS to act as forwarding agent for export control and, if exported from the US, shipper certifies that the commodities, technology or software were exported from the US in accordance with the Export Administration Regulations in force at the time of export.

Sample Receipt Record

Batch Number: B4282-02
Client/Project: Cheney

Date Received: 3-24-19
Received By: [Signature]

Were custody seals intact?

☒ Yes ☐ No ☐ N/A

Packing Material:

☒ Ice ☐ Blue Ice ☐ Box

Temp OK? (<6°C) Therm ID: 173 Expires: 4/16/2019 Observed: 1-6 °C, Actual Temp: 3.6 °C

☒ Yes ☐ No ☐ N/A

Was a Chain of Custody (CoC) Provided?

☒ Yes ☐ No ☐ N/A

Was the CoC correctly filled out? (If No, document below)

☒ Yes ☐ No ☐ N/A

Were the sample containers in good condition (not broken or leaking)?

☒ Yes ☐ No ☐ N/A

Are all samples within 36 hours of collection?

☒ Yes ☐ No ☐ N/A

Method of Shipment: ☐ Hand Delivered, ☒ FedEx, ☐ UPS, ☐ Greyhound, ☐ Other: _____ ☐ N/A

Sample Exception Report (The following exceptions were noted)

--

Client was notified on:

Client contact:

Resolution to Exception:

--

CHAIN OF CUSTODY RECORD FOR NPDES COMPLIANCE BIOMONITORING

Client City of Cheney
Address 119 Anderson Rd
Cheney Wa 99004

NPDES# WA0020842 Ship Samples to: PO# 040223
Composite Sample Information _____

TestAmerica ASL

Attention: Aquatic Toxicology Laboratory
1100 NE Circle Blvd, Suite 310
Corvallis, OR 97330
Phone: 541.243.6137

Samples/Hour _____ Volume/Sample _____
 Total Hours _____ Total Volume _____
 Initiated: Date _____ Time _____
 Ended: Date _____ Time _____
 Chilled During Collection _____
 Check Chilled Temp. Up _____

Contact Person: Mike Lambert
Phone: 509-498-9305

Check Chlorine (Y/N) _____

Temp. Upon Arrival (°C)

Check Ammonia (Y/N)	Dechlorinated (Y/N)

Project #

[illegible]

Sampled By & Title <i>Mike Lambert WMP II</i>	(Please sign and print name)	Date/Time 3-20-19 1144	Relinquished By <i>Mike Lambert</i>	(Please sign and print name)	Date/Time 3-20-19 1416		
Received By <i>L. O. Herrera</i>	(Please sign and print name)	Date/Time 3-21-19 1030	Relinquished By	(Please sign and print name)	Date/Time		
Received By	(Please sign and print name)	Date/Time	Relinquished By	(Please sign and print name)	Date/Time		
Received By	(Please sign and print name)	Date/Time	Shipped Via		Shipping #		
Work Authorized By	(Please sign and print name)	Remarks	UPS	Bis	Fed-Ex	Hand	Other
			COC_Bioassay.xls				
			Doc Control ID: ASL612-0717				

ORIGIN ID: GEGA (509) 235-5551
SHIPPED THROUGH
COPY JUNCTION
1921 FIRST STREET
CHENEY, WA 99004
UNITED STATES US

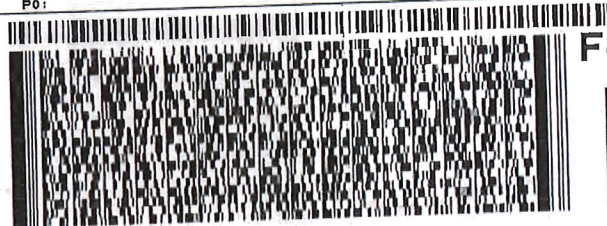
SHIP DATE: 20MAR19
ACTWGT: 64.97 LB
CAD: 112048993/WSXI3300
DIMS: 26x14x14 IN
BILL SENDER

TO AQUATIC TOXICOLOGY LABORATORY
TEST AMERICA ASL
1100 NE CIRCLE BLVD STE 310

CORVALLIS OR 97330

(541) 243-6137
INV: PKG ID: 191485
PO:

REF: CINDY NIEMEIER
DEPT:



FedEx
Express



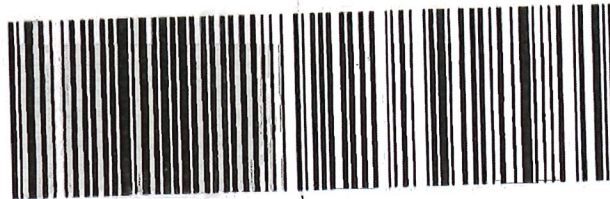
J151019010701uv

TRKH# 7861 5101 0786
0201

THU - 21 MAR 12:00P
PRIORITY OVERNIGHT

XH CVOA

97330
OR-US PDX



SEE NOTICE ON REVERSE regarding UPS terms, and notice of limitation of liability. Where allowed by law, shipper authorizes UPS to act as forwarding agent for export control and customs purposes. If exported from the US, shipper certifies that the commodity, technology or software is not being exported from the US in accordance with the Export Administration Regulations. Classification markings in law is prohibited. 8000 002 0000

Sample Receipt Record

Batch Number: B4282-03
Client/Project: Cheney

Date Received: 3-23-19
Received By: [Signature]

Were custody seals intact?

☒ Yes ☐ No ☐ N/A

Packing Material:

☒ Ice ☐ Blue Ice ☐ Box

Temp OK? (<6°C) Therm ID: 173 Expires: 4/16/2019 Observed: 0.8°C, Actual Temp: 1.9°C

☒ Yes ☐ No ☐ N/A

Was a Chain of Custody (CoC) Provided?

☒ Yes ☐ No ☐ N/A

Was the CoC correctly filled out? (If No, document below)

☒ Yes ☐ No ☐ N/A

Were the sample containers in good condition (not broken or leaking)?

☒ Yes ☐ No ☐ N/A

Are all samples within 36 hours of collection?

☒ Yes ☐ No ☐ N/A

Method of Shipment: ☐ Hand Delivered, ☒ FedEx, ☐ UPS, ☐ Greyhound, ☐ Other: _____ ☐ N/A

Sample Exception Report (The following exceptions were noted)

<p>ORIGIN ID: GEGA (509) 235-5551 SHIPPED THROUGH COPY JUNCTION 1921 FIRST STREET CHENEY, WA 99004 UNITED STATES US</p>	<p>SHIP DATE: 22MAR19 ACTWGT: 64.28 LB CAD: 112046933/MSX13300 DIMS: 25x14x14 IN BILL SENDER</p>	<p>TO AQUATIC TOXICOLOGY LABORATORY TEST AMERICA ASL 1100 NE CIRCLE BLVD STE 310 CORVALLIS OR 97330</p>	<p>REF: CINDY NIEMEIER DEPT: INV: PKG ID: 151593 PO:</p>	<p>565J1/46D3/23RD</p>	<p>1191019010701</p>	<p>FedEx Express</p>	<p>E</p>	<p>TRK# 7861 9805 4393 0201</p>	<p>SATURDAY 1:30P PRIORITY OVERNIGHT</p>	<p>97330 OR-US PDX</p>	<p>X0 CVOA</p>	<p>655J1/46D3/23RD</p>	<p>SEE NOTICE ON REVERSE regarding UPS Terms and conditions of liability. Where allowed by law, shipper authorizes UPS to act as forwarding agent for export control and customs purposes. Shipper agrees to indemnify and hold TestAmerica, Inc. harmless from all claims, damages, losses, and expenses, including reasonable attorney's fees, arising from the use of the services provided by UPS.</p>
---	--	---	--	------------------------	----------------------	--------------------------	-----------------	-------------------------------------	--	----------------------------	-----------------------	------------------------	--

CHAIN OF CUSTODY RECORD FOR NPDES COMPLIANCE BIOMONITORING

THE LEADER IN ENVIRONMENTAL TESTING

Client City of Cheney
Address 119 Anderson Rd
Cheney wa. 99004

NPDES# WA0020843
Composite Sample Information

Ship Samples to:
PO# D40223

TestAmerica ASL
Attention: Aquatic Toxicology
1100 NE Circle Blvd, Suite 100
Corvallis, OR 97330
Phone: 541.243.6137

Samples/Hour _____ Volume/Sample _____
 Total Hours _____ Total Volume _____
 Initiated: Date _____ Time _____
 Ended: Date _____ Time _____
 Chilled During Collection _____
 Check Chilled Temp. Up _____

Contact Person: Mike Lambert
Phone: 509-498-9305

Ended: _____ Date _____
Chilled During Collection _____

Project #

Check Chlorine (Y/N)

Temp. Upon Arrival (°C)

Check Ammonia (Y/N)	Dechlorinated (Y/N)

Analysis Required / Comments

[illegible]

Sampled By & Title <i>Mike Lambert</i>	(Please sign and print name)	Date/Time 3-23-19 11:46	Relinquished By <i>Mike Lambert</i>	(Please sign and print name)	Date/Time 3-22-19 14:10
Received By <i>[Signature]</i>	(Please sign and print name) <i>Mike Lambert</i>	Date/Time 3-23-19 09:58	Relinquished By	(Please sign and print name)	Date/Time
Received By	(Please sign and print name)	Date/Time	Relinquished By	(Please sign and print name)	Date/Time
Received By	(Please sign and print name)	Date/Time	Shipped Via	UPS Bis Fed-Ex Hand Other	Shipping #
Work Authorized By	(Please sign and print name)	Remarks	COC_Bioassay.xls Doc Control ID: ASL612-0717		