SERVICE AGREEMENT
ANNUAL EXTENSION – YEAR 2 OF 5
(RFP No. 14-15-154)

Pursuant to Section 7, EXTENSION, CHANGES AND AMENDMENTS of the Whole Effluent Toxicity Testing Service Agreement (Agreement) dated June 25, 2015 between the City of Las Cruces (City) and Ramboll Environ US Corporation (Contractor), the City and Contractor agree to renew the Agreement for a period of one (1) year, to begin June 25, 2016 and terminate June 24, 2017.

All other terms of the Service Agreement remain the same.

AGREED:

RAMBOLL ENVIRON US CORPORATION		CITY OF LAS CRUCES	
Robin L Richards	03/11/16	Deb Smith	3/28/16
Signature	Date	Deb Smith Purchasing Manager	Date
Robin L. Richards Printed Name/Title			

PROFESSIONAL SERVICES AGREEMENT

THIS AGREEMENT made and entered into on this June 25, 2015 by and between the City of Las Cruces, New Mexico, hereinafter called "CITY" and Ramboll Environ US Corporation of 201 Summit View Drive, Brentwood, TN 37027 hereinafter called "CONTRACTOR".

1. PROJECT DESCRIPTION
Whole Effluent Toxicity Testing for NPDES Compliance
The present NPDES permits specify quarterly testing with the option of accelerated testing on a monthly basis as per permit authority request in the event of a test failure. Monthly testing shall continue until results demonstrate no toxic effects for a period of three (3) consecutive months. The attached Exhibit A: Parts One and Two and applicable NPDES permits (Jacob Hands Treatment Plant, NM0022311 and East Mesa Water Reclamation Facility, NM0030872) outline the scope of work, data quality objectives criteria, technical requirements and procedures to follow in Whole Effluent Toxicity testing.

2. SCOPE OF SERVICES
In a satisfactory and proper manner, the CONTRACTOR shall perform SERVICES as set forth in Exhibit A – Parts One through Three, attached hereto and made a part of this Agreement.

The CONTRACTOR is authorized to extend the same terms and conditions of this Agreement to other governmental entities conditioned upon the procurement laws and regulations of those entities. The CITY shall not be a party nor have any liability relating to such extensions.

3. APPROPRIATIONS
The terms of this Agreement are contingent on sufficient appropriations and authorization being made by the City Council for the performance of this Agreement. If sufficient appropriations and authorizations are not made by the City Council, this Agreement shall terminate upon written notice given by the CITY to CONTRACTOR. The CITY'S decision as to whether sufficient appropriations and authorizations exist shall be accepted by CONTRACTOR and shall be final.

4. COMPENSATION
The CITY shall compensate CONTRACTOR for the performance of SERVICES under this Agreement as proposed in response to the CITY'S RFP 14-15-154 attached hereto as Exhibit B and made a part of this Agreement, plus applicable taxes.

CONTRACTOR is responsible for payment of State of New Mexico Gross Receipts Tax levied on the amounts payable under this Agreement. CONTRACTOR agrees to comply with all federal and state tax payments and report all items of gross receipts as income from the operations of its business.

5. DEVOTION OF ADEQUATE TIME
CONTRACTOR will devote the necessary hours each week to the performance of projects that are required by the CITY and it will serve the CITY diligently and faithfully, and according to its best ability in all respects and will promote the best interests of the CITY.

6. TERM AND SCHEDULE
This Agreement shall become effective on June 25, 2015 for a term of one year and, pending mutual written agreement, may be extended annually thereafter for up to four (4) more years.

CONTRACTOR shall perform the SERVICES in accordance with the time set forth as agreed upon by the CITY and CONTRACTOR.

7. EXTENSIONS, CHANGES, AND AMENDMENTS
This Agreement shall not be extended, changed, or amended except by instrument in writing executed by the parties. The CITY shall not be liable for payment of any extra services nor shall CONTRACTOR be obligated to perform any extra services except upon such written agreement. Such written approval shall indicate the date said extension, change, or amendment is effective and shall be signed by the parties to this Agreement. In the event that the parties cannot reach agreement as to a particular change, the issue shall be resolved pursuant to Article 21.

8. CHANGES AND EXTRA SERVICES BY THE CITY
The CITY may make changes within the general scope of the SERVICES plus may also request CONTRACTOR to perform other extra services not incorporated within the Services set forth in this Agreement. If the CONTRACTOR is of the opinion that such change causes an increase or decrease in the cost and/or the time required for performing the changes or other services required by the CITY, CONTRACTOR shall so notify the CITY, of that fact within five (5) business work days from the date of receipt of change by the CITY. The CITY shall provide written response to the CONTRACTOR within five (5) business work days from the date of receipt of CONTRACTOR'S written notification.

9. CHANGES AND EXTRA SERVICES BY THE CONTRACTOR
In the event a condition is identified by the CONTRACTOR which, in the opinion of the CONTRACTOR, changes the services, costs, and/or time required for performance under this Agreement, the CONTRACTOR shall provide written notification to the CITY within five (5) business work days of such identification. The CITY shall respond in writing to such notification within five (5) business work days from the date of receipt of CONTRACTOR'S notification.

10. DELAYS
In the event that performance of SERVICES is delayed by causes beyond reasonable control of CONTRACTOR, and without the fault or negligence of CONTRACTOR, the time and total compensation for the performance of the SERVICES may be equitably adjusted by written agreement to reflect the extent of such delay. CONTRACTOR shall provide the CITY, with written notice of delay pursuant to Article 9 including therein a description of the delay and the steps contemplated or actually taken by CONTRACTOR to mitigate the effect of such delay. The CITY will make the final determination as to reasonableness of delays.

11. TERMINATION
This Agreement may be terminated by either party hereto upon fifteen (15) calendar days written notice in the event of substantial failure by the other party to perform in accordance with the terms of this Agreement through no fault of the terminating party. This Agreement may also be terminated by the CITY, for its convenience or because the PROJECT has been

permanently abandoned, but only upon fifteen (15) calendar days written notice to CONTRACTOR.

In the event of termination, CONTRACTOR shall be compensated for all services performed and costs incurred up to the effective date of termination for which CONTRACTOR has not been previously compensated.

Upon receipt of notice of termination from the CITY, CONTRACTOR shall discontinue the SERVICES unless otherwise directed and upon final payment from the CITY, deliver to the CITY, the required number of copies of all data, drawings, reports, estimates, summaries, and such other information and materials as may have been accumulated by CONTRACTOR in the performance of this Agreement, whether completed or in process.

12. RECORDS AND AUDITS

CONTRACTOR will maintain records indicating dates, length of time, and services rendered. The CITY has the right to audit billings both before and after payment, and contest any billing or portion thereof. Payment under this Agreement does not foreclose the CITY'S, right to recover excessive or illegal payments.

13. DISCLOSURE AND OWNERSHIP OF DOCUMENTS, PRODUCTS, DESIGN, ELECTRONIC FILES

All technical data, electronic files, and other written and oral information not in the public domain or not previously known, and all information, electronic files, and data obtained, developed, or supplied by the CITY, will be kept confidential and CONTRACTOR will not disclose to any other party, directly or indirectly, without the CITY'S, prior written consent unless required by lawful order.

All technical data, electronic files, products developed, operational parameters, blueprints, and other information and work of the CONTRACTOR shall be the sole property of the CITY, and shall be delivered to the CITY, when requested and at the end of the Agreement.

14. INDEPENDENT CONTRACTOR

CONTRACTOR represents that it has, or will secure, at its own expense, all personnel required in performing the SERVICES under this Agreement. Such personnel shall not be employees of, nor have any contractual relationship with the CITY, CONTRACTOR, consistent with its status as an independent contractor, further agrees that its personnel will not hold themselves out as, nor claim to be officers or employees of the CITY, by reason of this Agreement.

To the extent that CONTRACTOR employs any employees, CONTRACTOR shall be solely responsible for providing its own form of insurance for its employees and in no event shall CONTRACTOR's employees be covered under any policy of the CITY.

CONTRACTOR'S retention hereunder is not exclusive. Subject to the terms and provisions of this Agreement: (i) CONTRACTOR is able, during the Term hereof, to perform services for other parties; and (ii) CONTRACTOR may perform for its own account other professional services outside the scope of this Agreement.

CONTRACTOR is and shall be an Independent Contractor and shall be responsible for the management of its business affairs. In the performance of the work under this Agreement, CONTRACTOR will at all times be acting and performing as an Independent Contractor, as that term is understood for federal and state law purposes, and not as an employee of the CITY. Without limitation upon the foregoing, CONTRACTOR shall not accrue sick leave, jury duty pay, retirement, insurance, bonding, welfare benefits, or any other benefits, which may or may not be afforded employees of the CITY. CONTRACTOR will not be treated as an employee for purposes of: Workers' Compensation benefits; the Federal Unemployment Tax Act; Social Security; other payroll taxes, federal or any state income tax withholding; or the employee benefit provisions described in the Internal Revenue Code of 1986, as amended. Neither the CITY, nor its agents or representatives, shall have the right to control or direct the manner, details or means by which CONTRACTOR accomplishes and performs its services. Nevertheless, CONTRACTOR shall be bound to fulfill the duties and responsibilities contained in the Agreement.

15. NO JOINT VENTURE OR PARTNERSHIP

Nothing contained in this Agreement shall create any partnership, association, joint venture, fiduciary or agency relationship between CONTRACTOR and CITY. Except as otherwise specifically set forth herein, neither CONTRACTOR nor CITY, shall be authorized or empowered to make any representation or commitment or to perform any act which shall be binding on the other unless expressly authorized or empowered in writing.

16. ASSIGNMENT

CONTRACTOR shall perform all the services under this Agreement and shall not assign any interest in this Agreement or transfer any interest in same or assign any claims for money due or to become due under this Agreement without the prior written consent of the CITY.

17. INSURANCE

CONTRACTOR shall obtain and maintain insurance at its own cost and expense during the life of this Agreement, and shall require Subcontractors, if any, to maintain during the life of his subcontract:

Professional Liability: $1,000,000 per claim

CONTRACTOR shall furnish the CITY, with a certificate(s) of insurance showing CONTRACTOR and Subcontractors, if any, have complied with this Article. The CONTRACTOR shall provide insurance certificates before work is to start on the project and shall provide the CITY thirty (30) days written notification of cancellation of such policies.

18. INDEMNITY AND LIMITATION

CONTRACTOR shall indemnify, defend, and hold harmless the CITY, from and against any and all claims, suits, actions, judgments, demands, losses, costs, expenses, damages, and liability caused solely by, resulting solely from, or arising solely out of the negligent acts, errors, or omissions of CONTRACTOR, its officers, employees, agents, or representatives in the performance of SERVICES under this agreement.

19. APPLICABLE LAW

This Agreement and the rights and obligations of the parties shall be governed by and construed by the laws of the State of New Mexico applicable to Agreements between New

Mexico parties made and performed in that state, without regard to conflicts of law principles. Venue shall be in the Third Judicial District, State of New Mexico.

CONTRACTOR shall abide and be governed by all applicable state law, CITY ordinances, and laws regarding the CONTRACTOR'S services or any work done pursuant to this Agreement.

20. BREACH

In the event CONTRACTOR breaches any obligation contained in this Agreement, prior to instituting any action or dispute resolution procedure, the CITY, shall give CONTRACTOR written notice of such breach. In the event CONTRACTOR fails to remedy the breach within five (5) working days of receiving such written notice, the CITY, at its sole discretion, without any obligation to do so and in addition to other remedies available under applicable law, may remedy CONTRACTOR'S breach and recover any and all costs and expenses in so doing from CONTRACTOR.

21. DISPUTE RESOLUTION

In the event that a dispute arises between CITY and CONTRACTOR under this Agreement or as a result of breach of this Agreement, the parties agree to act in good faith to attempt to resolve the dispute.

In the event of termination, CONTRACTOR shall be compensated for all services performed and costs incurred up to the effective date of termination for which CONTRACTOR has not been previously compensated.

Upon receipt of notice of termination from the CITY, CONTRACTOR shall discontinue the SERVICES unless otherwise directed and upon final payment from the CITY, deliver to the CITY, the required number of copies of all data, drawings, reports, estimates, summaries, and such other information and materials as may have been accumulated by CONTRACTOR in the performance of this Agreement, whether completed or in process.

22. NOTIFICATION

All notices required or permitted under this Agreement shall be in writing and shall be deemed sufficiently served if served by Registered Mail addressed as follows:

TO CITY: City of Las Cruces,
PO Box 20000
Las Cruces, NM 88004
ATTENTION: Luis Guerra

With Copies to: Purchasing Manager

TO CONTRACTOR: Ramboll Environ US Corporation
201 Summit View Drive
Brentwood, TN 37027
ATTENTION: Liza Heise

23. SCOPE OF AGREEMENT

This Agreement incorporates all of the agreements, covenants, and understandings between the parties hereto concerning the subject matter hereof and that all such covenants, agreements, and understandings have been merged into this written agreement. No prior agreement or understanding verbal or otherwise of the parties or their agents shall be valid or enforceable unless embodied in this agreement.

RAMBOLL ENVIRON US CORPORATION

BY: Robin L Richards

Name Robin Richards
Title Principal

July 6, 2015
Date

CITY OF LAS CRUCES

BY: Deb Smith

Deb Smith
Purchasing Manager

7.17.15
Date

APPROVED AS TO FORM

City Attorney

EXHIBIT A

SERVICES

Exhibit A Services: Part One

Technical Agreement for Analytical Services Related to

NPDES Whole Effluent Toxicity Testing

The City of Las Cruces (hereinafter "the CLIENT") is required to conduct periodic whole effluent toxicity testing (WET). The testing and monitoring requirements are set forth in the NPDES Permit No. NM0023311 and Permit No. NM0030872 issued by the U. S. Environmental Protection Agency, Region 6, Dallas, TX.

The CLIENT desires to contract with Ramboll Environ US Corporation (hereinafter: "the Lab," to conduct the required tests. As these tests will be used to establish compliance with conditions in the NPDES Permit, they must meet certain specifications.

This document is intended to provide detailed descriptions of the work to be performed, the manner in which it is to be performed, and the procedures for reporting results.

I. PRE-REQUISITE QUALIFICATIONS

A. ELAP Certification

The lab shall be certified and registered as an environmental testing laboratory pursuant to the provisions of the LABORATORY CERTIFICATION REGULATION to perform all analysis listed in Section II of this agreement. The Lab shall provide a copy of their current ELAP certificate to the CLIENT. The Lab shall also provide a copy of their renewal certificate when it is reissued.

Alternatively, the lab shall be approved by the PERMITTING AUTHORITY if no ELAP certification is available. Regulatory approvals can be coordinated through CLIENT.

B. DMR and WP Studies

The Lab shall participate in QA/QC performance studies for WET testing when requested by the CLIENT (Client must participate in QA/QC testing DMR-QA Study 35 requirement pertaining to Permit No. NM0023311 & NM0030872 in 2015). The Lab shall notify the CLIENT whenever such studies are planned or proposed by the EPA OR STATE PERMITTING AUTHORITY. The Lab shall submit a copy of all study results to the CLIENT within 15 working days of receipt of those results.

C. Guidance Document

The Lab shall maintain complete copies of:

1. The CLIENT NPDES permit including the monitoring and reporting program (93-45). CLIENT will provide copies of these documents.
2. Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms; 4th Ed, 2002.
3. Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms; 5th Ed., 2002.
4. Technical Support Document for Water Quality-based Toxics Control; EPA/505/2-90-001, March 1991.

5. 40 CFR 136 and the related appendices (methods 1000.0, 1002.0, & 1003.0 including updated revisions to the toxicity test protocols)
6. Understanding and Accounting for Method Variability in WET Applications under the NPDES Program; EPA-833-R-00-003; June 2000.
7. Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136). EPA-821-B-00-004; July 2000.

D. Qualified Technicians and Analysts

All of the laboratory work, including the statistical analysis, conducted at the request of the CLIENT shall be performed by qualified and experienced technicians and analysts. The educational qualifications and work experience of all technicians and analysts performing work for the CLIENT shall be available for review at the request of the CLIENT.

E. Supervision

All of the work performed by the Lab for the benefit of the CLIENT shall occur under the general supervision and control of Liza Heise. The Lab must notify the CLIENT in the event the person named above is no longer able to supervise the conduct of tests performed for the CLIENT.

F. Subcontractors

No analytical services, requested by the CLIENT, may be subcontracted to another laboratory, person or firm without prior written consent by the CLIENT. Where consent is given, the Lab shall attach complete copies of the subcontractor's report to their own final report. The subcontractor's report shall be submitted on the subcontractor's own letterhead. Subcontractor services will be billed through the standard contract agreement between the Lab and the CLIENT. All subcontractors shall agree to certify the test results in the same manner as the Lab.

G. Laboratory Conditions

All of the testing and analysis performed for the benefit of the CLIENT shall be conducted in clean laboratory conditions. Clean conditions means there is no potential for test contamination by toxics in toxic amounts from sources other than the effluent sample as received by the Lab from the CLIENT.

H. Reference Toxicant Tests

The Lab shall conduct reference toxicant tests for all species and protocols used to analyze the effluent at least **once each month**. The Lab shall maintain historical performance charts for the results of all reference toxicant tests run in the preceding twelve months or in the twenty most recent tests performed. The charts must record the results from each reference toxicity test, the mean for all reference toxicity tests, and the upper and lower 95% confidence limits for the preceding twelve months or twenty tests. The charts shall be updated and attached to each WET report the Lab submits to the CLIENT.

I. Control Charts

Lab shall maintain historical performance charts documenting results from all control groups evaluated during each month. The charts must record the average result for each control group, the date of that test, the mean result for all controls, and the 95% upper and lower control limits for preceding month. The charts shall be updated and attached to each WET report the Lab submits to the CLIENT.

J. Notifications

The Lab shall notify the CLIENT of any change in the laboratory operation that impacts ELAP certification, such as: revocation, suspension or non-renewal of certification, transfer of ownership, change of laboratory director, change in location, major changes in instrumentation, or structural alterations that have an effect on the quality of analysis performed. A copy of any required notices submitted to the ELAP program shall also be sent to the CLIENT.

The Lab shall also notify the CLIENT if data from control charts indicate that test organisms may not be able to meet EPA's minimum control performance criteria for test acceptability. With such notification, the Lab shall suggest an alternate sampling period when test organisms are more likely to meet performance specifications.

II. WORK TO BE PERFORMED

A. Regular Toxicity Testing

Once each quarter, the Lab shall be requested to conduct a whole effluent chronic toxicity tests, using *Ceriodaphnia dubia* and Fathead minnows under the protocols specified in EPA document #600-4-89-001.

B. Annual Species Sensitivity Testing

Once each year, the Lab shall conduct acute and chronic whole effluent toxicity tests using *Ceriodaphnia dubia* and Fathead minnows.

C. Re-testing

In the event that any toxicity test(s) fails to meet EPA's recommended test acceptance criteria, then the Lab shall notify the CLIENT within 24 hours. The lab shall be responsible to conduct a new test, at their expense, when new sample water is received from CLIENT. CLIENT shall provide additional effluent samples to the Lab at no expense to the Lab.

D. Accelerated Testing

In the event that any toxicity test shows a statistically-significant reduction in measured biological endpoints, the Lab shall notify CLIENT within 24 hours. CLIENT may be required to run additional toxicity tests when previous failures are recorded. The lab shall coordinate with CLIENT to run the extra tests at the earliest available opportunity. The accelerated tests shall be conducted at the expense of CLIENT.

E. Audit Testing

At the request of CLIENT, the Lab may be asked to perform other whole effluent toxicity tests for quality assurance purposes. Such audits shall be conducted at the expense of the CLIENT.

III. EXPERIMENTAL TEST DESIGN

A. Dilution Series

All whole effluent toxicity tests performed on behalf of the CLIENT for methods 1000.0 and 1002.0 shall be conducted using a dilution series containing the following or updated concentrations for Permit No NM0023311: 13%, 17%, 23%, 30%, and 40% effluent.

All whole effluent toxicity tests performed on behalf of the CLIENT for methods 1000.0 and 1002.0 shall be conducted using a dilution series containing the following or updated concentrations for Permit No NM0030872: 32%, 42%, 56%, 75%, and 100% effluent.

B. Replicates

All whole effluent toxicity tests performed on behalf of the CLIENT for methods 1000.0 and 1002.0 shall be initiated with the minimum number of replicates specified in the following table:

Species	Chronic
Fathead minnow	5[1]
Ceriodaphnia dubia	10[2]

[1]*Each* Fathead minnow - *each chronic replicate contains* ***eight*** *organisms.*
[2]*Each Ceriodaphnia dubia - each chronic replicate contains* ***one*** *organism.*

C. Selection of Test Organisms

All organisms used in whole effluent toxicity testing shall be selected in accordance with the procedures specified by EPA. Specifically, Fathead minnow larvae, used in the chronic test procedure, shall be less than 48 hours old (<24 hrs. if in-house cultures are used) and all hatched within 24 hours of one another. *Ceriodaphnia dubia*, used in the chronic test procedure, shall be less than 24 hours old and all within 8 hours of the same age to begin the test. To qualify for use in chronic testing, neonate *Ceriodaphnia* may only be taken from adults that have eight or more young in their third or subsequent broods and the adult brood stock shall be less than 14 days old (see section 12.2.3 of EPA protocol for *Ceriodaphnia*).

D. Randomization

All test organisms shall be placed in test cells using randomization procedures specified by EPA. The *Ceriodaphnia* test shall also use the “blocking” methods described in section 12.2.4 of EPA’s chronic protocol for *Ceriodaphnia*.

E. Dilution Water

Water used to dilute effluent or serve as a test control shall conform to the recipe for "moderately hard" or "Very Hard Water" water as described in Section 7 of EPA's chronic and acute test manual. A second dilution-water control series (chronic: 13%, 17%, 23%, 30%, and 40% / 32%, 42%, 56%, 75%, and 100%) shall consist of laboratory reconstituted water prepared to equal historical hardness, alkalinity, and pH of the receiving water body (to be specified). No other formulation shall be substituted without prior written authorization from the CLIENT. And, the Lab shall certify that the dilution water is "free from toxics in toxic amounts" in the final report submitted to the CLIENT.

F. Deviations

Any deviation from the experimental design prescribed by EPA's official guidance documents shall be identified and justified in the Lab's final report to CLIENT. In addition, such deviations shall be highlighted in a transmittal letter which accompanies the final report.

IV. RECEIPT OF SAMPLES

A. Sampling Containers

The Lab shall supply clean, unused cube containers for effluent samples for WET testing. The containers shall be shipped in coolers with chain of custody forms and tape, as well as any included instructions, and shall be received at least one week before the scheduled testing date.

B. Receiving

The Lab shall assure that qualified personnel are available to receive effluent samples when they are scheduled to arrive.

C. Chain-of-Custody Forms

The Lab shall record the date and time of receipt, and temperature of each water sample upon arrival, on the chain-of-custody form which accompanies each effluent sample. Upon receipt sample integrity will be verified, and the contact for CLIENT notified by 3pm on the date expected. Copies of the chain-of-custody forms shall be included with each test report submitted to the CLIENT.

D. Non-Receipt of Scheduled Samples

The Lab shall immediately notify the CLIENT in the event that a scheduled sample is not received by 3pm on the date expected. Such notification shall be by both phone, e-mail, and fax to the following persons and locations (in the ascribed order):

(a) Luis Guerra, WQL
Phone: 575-528-3609
e-mail: lguerra@las-cruces.org
Fax: 575-528-3630

(b) Water Quality Laboratory
Phone: 575-528-3604
Fax: 575-528-3630

(c) Carl Clark, Utilities/RES
Phone: 575-528-3548

e-mail: cclark@las-cruces.org
Fax: 575-528-3689

V. WATER CHEMISTRY

A. Required Analysis
The Lab shall analyze each effluent sample for the following constituents/parameters:
(a) Temperature
(b) pH
(c) Alkalinity
(d) Hardness
(e) Conductivity
(f) Dissolved Oxygen
(g) Total Residual Chlorine
(h) Total Ammonia
(i) Chronic Testing : Organophosphate Pesticides (Diazinon)

B. Special pH Recording

The Lab shall report the average pH of each test concentration before and after each renewal. The average pH may be measured by pooling the "used" water from all replicates, in each treatment group, after organisms are moved to replacement water. Alternatively, the lab may elect to measure the pH of each and every replicate before and after sample water is replaced.

C. Reporting Chemical Results

The Lab shall include the results of all chemical analysis in the written report summarizing each whole effluent toxicity test series. Where chemical analyses are performed by a subcontractor (e.g. organophosphate pesticides), results shall be submitted as an attachment to the lab's final report, or follow as soon as possible.

D. Reporting Exceptions

Where one or more chemical parameters is believed to be outside acceptable limits, as defined in EPA's protocols, the Lab shall note the exception in their written report. The Lab shall also provide describe the impact of any deviation on test acceptability in their written report (see section 4.9.2 of EPA chronic protocol & EPA acute protocol).

E. Special Conditions for Chlorine

If chemical analysis indicates that chlorine appears to be present, the Lab shall continue to run the WET test without de-chlorinating the sample unless specific written instructions to the contrary accompany the Chain-of-Custody forms. The Lab shall record the chlorine results, including the detection limit for the analytical method used, in their written report.

F. Physical Inspection of Samples

The Lab shall visually inspect each effluent sample when it is opened for testing. The samples shall be clear of debris and free of odors. Any unusual conditions shall be noted in the Lab's written report to the CLIENT.

VI. TEST ACCEPTABILITY

A. Minimum Control Performance Criteria

All whole effluent toxicity tests shall meet EPA's recommended minimum control performance criteria (shown in the table below). Failure to meet the minimum criteria constitutes a breach of quality assurance and makes the data "unacceptable" for use in assessing NPDES permit monitoring and compliance.

Control Organisms	Acute Tests	Chronic Tests
Fathead minnow	≥90% survival	≥80% survival and ≥0.25 mg average weight per fish
Ceriodaphnia dubia	≥90% survival	≥80% survival and ≥15 offspring per surviving female invertebrate

B. Notification for Failed QA/QC

If a test fails to meet EPA's minimum control performance criteria, the Lab shall notify the CLIENT within 24 hours of test termination. Such notification shall be by phone, by fax, and by pager to the following persons mentioned on IV. 4.

C. Re-testing for Failed QA/QC

If a test fails to meet EPA's recommended minimum control performance criteria, the Lab shall initiate a new test at their expense. The CLIENT shall provide additional effluent samples at no expense to the Lab.

D. Data Submission for Failed QA/QC

The Lab shall submit copies of all bench sheet data from any test which fails to meet EPA's recommended minimum control performance criteria to the CLIENT. No additional statistical analysis is required, or expected, when data otherwise fails to meet QA/QC criteria.

E. Control Group Specification for Assessing QA/QC

Control performance shall be assessed based on the results from the dilution control group only. Under no circumstances shall alternative test data, from other control groups, be substituted for the dilution control group without prior written authorization from the CLIENT.

VII. DATA ANALYSIS

A. Selection of Statistical Methods

The Lab shall use EPA's recommended flowcharts to conduct all statistical analysis of whole effluent toxicity test data (see Section 11.13.2.4; figure 5 & 6 and Section 11.13.3.3; figure 9 of EPA's chronic procedures for Fathead minnows, Section 13.13.2.2, figure 4 and Section 13.13.3.4, and figure 6 of EPA's chronic procedures for *Ceriodaphnia dubia*,).

B. Test Metrics

The Lab shall calculate and report the highest No Observed Effect Concentration (NOEC) for all biological endpoints (lethal and sub-lethal) in each chronic and acute toxicity test. The Lab shall also record and note where the results for any effluent concentration are significantly less than control performance. The threshold for statistical significance shall be set so that the risk of Type-I inferential error is less than or equal to 5% ($p<.05$).

C. Calculating TUc for Sub-Lethal Endpoints

The lab shall assess all sub-lethal endpoints using the NOEC methodology. The lab shall also calculate the IC25 using the Inhibition Concentration methodology where recommended in EPA's flowchart. However, only the NOEC shall be used to calculate and report the estimated TUc value for reproduction, growth or cell density. The IC25 shall not be used to assess the "pass/fail" status of any toxicity test.

D. Computer Printouts

The Lab shall provide copies of all printouts (text and graphics) from any computer programs used to analyze whole effluent toxicity data in their final written report to CLIENT.

E. Minimum Significant Difference Calculations

The Lab shall calculate and report the Minimum Significant Difference (MSD) for each biological endpoint (lethal and sub-lethal) in the toxicity tests. The MSD shall be reported as the percent reduction from the mean of control performance which would be statistically-significant (95% confidence).

F. Reporting Brood-level Data

For all chronic toxicity tests performed using *Ceriodaphnia dubia*, the Lab shall report the percentage of control replicates which produced at least three broods prior to test termination. The Lab shall also record and report the percentage of replicates which produced at least three broods for each and every effluent concentration.

G. Independent Data Review

The Lab's Study Director shall conduct an independent review of all procedures, data and statistical analysis for whole effluent toxicity tests conducted using effluent. The Study Director shall signify such review has occurred by initialing every page of the final report submitted to CLIENT.

VIII. REPORTING

A. Urgent Results

The Lab shall notify the CLIENT of any test result which appears to indicate the presence of toxicity (TUc>1 or TUa>1) within 24 hours of test completion. Such notification shall be by phone, by fax, and by pager as stated in IV. 4.

B. Normal Reporting

The Lab shall provide a complete written report summarizing test methods, procedures, results, and analysis to the CLIENT within fourteen (14) calendar days of test completion. The report will also include the EPA Region 6 summary sheets.

C. Transmittal Letter

The Lab shall provide a cover letter to their final written report for each whole effluent toxicity test conducted on behalf of the CLIENT. The transmittal letter shall include all of the following specific information:

1. Whether controls met EPA's minimum performance requirement for each test.
2. Whether a statistically-significant reduction in survival, growth or reproduction was observed when comparing controls organisms to organisms exposed to undiluted effluent.
3. Any exceptions to EPA methods and procedures shall be specifically identified.

D. Certification Statement

The Lab shall certify the results of their testing procedures in accordance with 40 CFR 122.22. Therefore, a formal certification statement shall be attached to the final written report submitted. The NPDES Permit, issued to CLIENT, requires the study director shall sign and date the following specific certification statement:

> *"I certify that all laboratory reports were prepared under my direction or supervision, and that all analyses were performed in accordance with a system designed to assure that qualified personnel perform the analysis, use the specified EPA-approved methods, and review the data before it is reported. Based on my inquiry of the person or persons who manage the system, or those directly responsible for gathering the information, the information reported is, to the best of my knowledge, true, complete and accurate."*

E. Bench Sheets

The Lab shall include copies of all laboratory bench sheets with their final written reports.

Bench sheets shall:

- Clearly indicate daily measurements of all relevant chemical and biological data.
- Distinguish between dead and missing (lost) organisms.

Errors shall be corrected on the bench sheets by crossing out the wrong information and adding the correct information. Erasure or "white-out" are unacceptable methods for correcting errors, and therefore not permitted. The previous incorrect data shall remain legible even after correction. All error corrections shall be initialed by the person making the correction.

F. Other Attachments

The Lab shall attach copies of all other data and information relevant to reviewing and interpreting the results of each whole effluent toxicity test as an appendix to their final report.

IX. SUPPORT SERVICES

A. Customer Service Representative

A customer service representative will be assigned to work directly with CLIENT staff. An alternate customer service representative shall also be designated in the event that the primary contact staff person is not available.

B. Direct Access

The CLIENT staff and their designated technical consultants shall have direct access to the QA/QC manager, laboratory director and section supervisors for issues which cannot be resolved by the customer service representatives.

C. Supplementary Written Documentation

The Lab shall provide written clarifications and responses to technical questions when specifically requested by the CLIENT. Such services may result in additional cost to the CLIENT.

X. NOTIFICATIONS

A. Official Communications

The written, verbal, e-mail, and facsimile (fax) notifications required in this technical agreement shall be made to the persons, addresses, e-mails, and telephone numbers mentioned above on IV. 4. Any changes to points-of-contact for the Lab shall be submitted to the CLIENT within seven (7) days of the effective date of change.

B. Contact Logs

The Lab shall maintain a log of all written and verbal communications between themselves and representatives of the CLIENT. The log shall show the date, time, persons, and purpose of each communication. Copies of the log shall be provided to the CLIENT upon request.

Exhibit A Services: Part Two

Data Quality Objectives for Whole Effluent Toxicity Tests

Null Hypothesis: *"The mean biological response (survival, growth or reproduction) of test organisms exposed to effluent shall not be less than the mean biological response of unexposed control organisms."*

Alternative Hypothesis: *"The mean biological response (survival, growth or reproduction) of test organisms exposed to undiluted effluent shall be less than the mean biological response of control organisms."*

Data Quality Objectives: The WET test shall be performed, analyzed and interpreted in a manner that distinguishes variations in effluent quality from natural biological variability in the test species, variations in test conditions or analytical variability in the biomonitoring laboratory.

Test Assumptions:

1) Variation in the rate of survival, growth or reproduction rates, between test organisms, is expected and quantifiable. Random assignment of test organisms to treatment groups, and blocking by family is necessary to minimize analytical test variability.
2) The parameter "toxicity" is no longer assumed to be absent when the measured difference in mean biological response between control organisms and effluent-exposed organisms is sufficiently large so as to occur less than 1% of the time by random chance or under known non-toxic conditions.
3) Where whole effluent chronic toxicity actually exists, the rate of survival, growth or reproduction declines as test organisms are exposed to increasing concentrations of toxin. This is called a "dose-response relationship."
4) Where whole effluent toxicity actually exists, observed reduction in the rate of survival, growth or reproduction is a reproducible phenomenon. Split samples shall agree on the presence or absence of "toxicity." The magnitude of reduction shall not be precisely reproducible; and, split samples shall not agree on the level of toxicity present.
5) There is no difference in test conditions between control organisms and other treatment groups other than the percentage of effluent they are exposed to. Effluent percentage is a surrogate measure for potential toxic pollutants.

The Null Hypothesis shall be rejected when all of the following conditions are met:

1) All of EPA's recommended test acceptance criteria are met.
2) The mean biological response of test organisms exposed to undiluted effluent, or in all concentrations greater than the instream waste concentration (IWC), is less than the mean biological response of control organisms.
3) The observed reduction in mean biological response among organisms exposed to undiluted effluent (or in all concentrations greater than the permitted IWC) is statistically significant ($p<.01$; 99% confidence) using a t-test of independent sample means. This is equivalent Dunnett's Procedure using an

alpha threshold of .05 for the full multi-group comparison with a Bonferroni adjustment for the number of comparisons made.

4) A confirmed dose-response occurs when the mean biological response among test organisms declines as effluent concentration increases when measured as a negative coefficient of slope in a linear regression equation ($p<.01$; 99% confidence).

5) At least two adjacent treatment groups in the dilution series, higher than or equal to the instream waste concentration, show a statistically-significant ($p<.05$) reduction in survival, growth or reproduction compared to controls. This accounts for the "plus or minus one dilution" error EPA warns of in 40 CFR 136.

6) Identical aliquots, analyzed by different bioassay laboratories, agree on the presence of a statistically-significant reduction in mean biological response among test organisms exposed to undiluted effluent compared to control organisms (when such sample splits are evaluated). The sample splits shall first meet the five data validation criteria listed above before being compared to one another.

7) Both the IC-25 and NOEC procedures agree that toxicity is present (within appropriate confidence intervals). The IC-25 shall be calculated using EPA's Linear Interpolation Procedure or a 3-parameter logistic regression-sigmoid equation to estimate "percent effect."

Failure to meet <u>all seven</u> data validation conditions means that the null hypothesis cannot be rejected with high confidence. The starting assumption that there is no toxicity in the effluent remains presumptively true. However, it may be appropriate to re-test under such conditions.

Rejecting the null hypothesis shall be considered "provisional" if any of the following conditions occur:

1) Treatment groups and control groups are not exposed to identical test conditions, including: unmatched hardness, unmatched alkalinity or unmatched TDS concentrations.

2) There is a negative correlation between the degree of differential pH-shock and the observed reduction in mean biological response as effluent concentration increases. The correlation shall be statistically-significant ($p<.05$; 95% confidence) and account for more variance than effluent concentration alone (measured as r^2).

3) 80% of the test organisms exposed to undiluted effluent produced two broods within 24 hours of the time in which 80% of controls produced two broods, but the third brood has not been released by the effluent-exposed organisms prior to test termination based on control performance. This is done to correct for the 8-hour potential difference in age between organisms and in recognition of EPA's admission that *Ceriodaphnia* may normally require up to eight days to produce 3-broods. Delays, within the normal 7-8 day window, are not necessarily evidence of impairment due to toxicity.

4) There is a statistically-significant reduction in organism survival but not a statistically-significant reduction in the sub-lethal endpoint (growth or reproduction) for the same test organism.

5) Monte Carlo re-sampling techniques demonstrate that the difference in mean survival between control organisms and effluent-exposed organisms has less

than a 5% probability (1% with chronic-survival) of occurring by chance alone using the acute test procedure. This criterion is only applied when permit limits for WET are based on raw percent survival, rather than LC-50 or some other comparison relative to control performance.

6) The rate of survival, growth or reproduction for control organisms is outside the range considered “normal” for the test species (mean ± one standard deviation). This accounts for super-performing controls and neutralizes some of the bias introduced by EPA's test acceptance criteria (minimum control performance & MSD).

7) There are unauthorized deviations from the required test method as specified in 40 CFR Part 136 and related guidance documents.

Exhibit A Services: Part Three

Ramboll Environ US Corporation
Proposal

Prepared for
City of Las Cruces
Date
May 2015

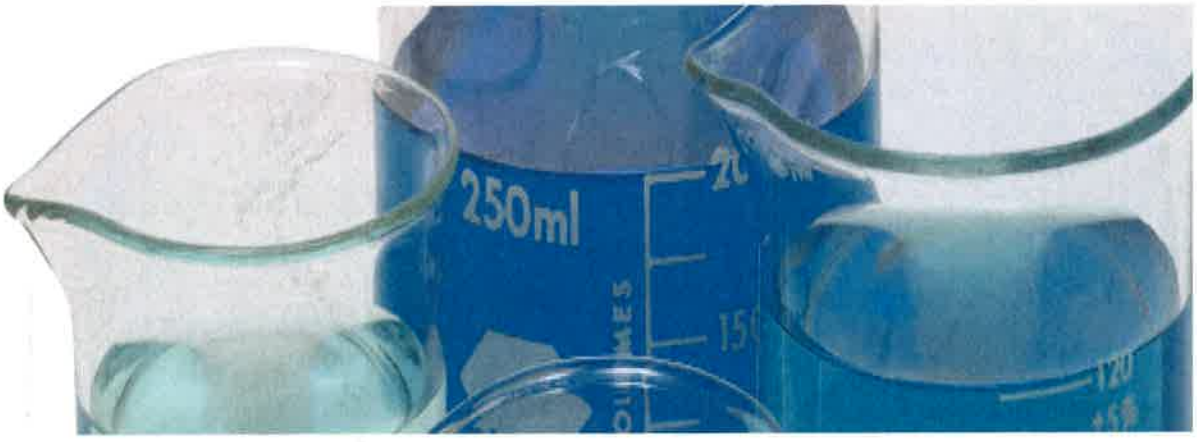
RFP NUMBER 14-15-154

OPENING DATE AND TIME:

MAY 19, 2015 AT 4:00 PM

RAMBOLL ENVIRON

Liza Heise
615-277-7517
615-377-4976



RAMBOLL ENVIRON

City of Las Cruces
PEOPLE HELPING PEOPLE

RFP COMPLIANCE DECLARATION

RFP TITLE: **Whole Effluent Toxicity Testing**

RFP NO.: **14-15-154**

DUE DATE/TIME: **May 12, 2015 / 4:00 p.m.**

In compliance with the requirements of this RFP, I, the undersigned, offer and agree to furnish any or all materials and/or services to the City of Las Cruces within the time agreed.

I further certify that this company has not been debarred, suspended, or otherwise made ineligible for participation in Federal Assistance programs under Executive Order 12549 Debarment and Suspension as described in the Federal Rules and Regulations.

Receipt of Addenda Nos.: 1 is hereby acknowledged (where none received, place a zero in this space)

Company Name and Address:

Ramboll Environ US Corporation

201 Summit View Drive

Brentwood, TN 37027

Robin L Richards

Authorized Signature

Robin Richards

Typed or Printed Name

Department Head

Title

rrichards@environcorp.com

Email address

Telephone number 703-516-2431 Fax number 615-377-4976

NM Tax & Revenue Dept. CRS # _____

Current NM Public Regulatory Commission Registration # _____ (corporations only)

Current CLC Business Registration # _____(respondents located in Las Cruces only)

Federal I.D. number 52-1248616 (mandatory for all respondents)

NM Resident Certificate from NM Tax and Revenue Department enclosed _____Yes X No

THIS FORM MUST BE COMPLETED AND INCLUDED WITH PROPOSAL
FAILURE TO INCLUDE WILL SUBJECT RESPONSE TO REJECTION

RAMBOLL ENVIRON

WATER

City of Las Cruces
Attn: Purchasing Section/Bid Clerk
700 N. Main Street, 3rd Floor Room 3134
Las Cruces, NM 88001

RFP NUMBER 14-15-154

PROPOSAL FOR WHOLE EFFLUENT TOXICITY TESTING FOR THE JACOB HANDS WSTEWATER TREATMENT FACILITY (PERMIT NO. NM0023311) AND EAST MESA WATER RECLAMATION FACILITY (PERMIT NO. NM0030872)

Date 15/May/2015

Ramboll Ramboll Environ
201 Summit View Drive
Suite 300
Brentwood, TN 37027
USA

T +1 615 277 7570
F +1 615 377 4976
www.ramboll-Ramboll Environ.com

Ramboll Environ US Corporation (Ramboll Environ) is pleased to submit to you this technical proposal in response to your request for chronic toxicity testing for the Jacob Hands Wastewater Treatment Facility and for the East Mesa Water Reclamation Facility in the City of Las Cruces, New Mexico.

Overview

Whole Effluent Toxicity (WET) testing is required by the National Pollutant Elimination Discharge System Permit for the Jacob Hands Wastewater Treatment Facility (Permit No. NM0023311) and the East Mesa Water Reclamation Facility (Permit No. NM0030872). Both permits, issued by the USEPA, Region VI, Dallas, Texas specifies short-term Chronic Toxicity Tests to be conducted on a quarterly basis with *Pimephales promelas* (fathead minnow) and *Ceriodaphnia dubia (C. dubia)* according to EPA-approved methods 1000.0 and 1002.0, respectively. Acute Toxicity Testing (48-hr) is to be conducted on a quarterly basis with *Daphnia pulex* according to EPA-approved method 2021.0 per RFP Number 14-15-154. The RFP issued by the City of Las Cruces (the City) is a request for services to conduct

these quarterly chronic and acute toxicity tests, however, should a test failure for lethality occur, accelerated testing on a monthly basis is required until no toxicity is demonstrated for a period of three consecutive months. Each sample used in WET testing is also to be analysed for the organophosphate pesticide diazinon.

Ramboll Environ understands this contract is for a base period of one year from date of award, with an option to renew, for additional four one-year terms, at the discretion of the City and under mutual agreement providing the pricing, terms and conditions remain the same.

Evaluation Criteria No. 1 – Statement of Work

Quarterly acute toxicity tests with *D. magna* and quarterly chronic toxicity testing with fathead minnow and *C. dubia* will be conducted with final effluent. Should any of the tests fail a biological endpoint (lethal and sub-lethal), monthly accelerated testing is required. Monthly testing shall continue until test results demonstrate no toxic effects for a period of three consecutive months. All test procedures and water quality analyses will be performed as required by USEPA and referenced in the RFP. Test data will be assessed and compared to the Data Quality Objectives Criteria specified in RFP Number 14-15-154. In the event a test fails to meet USEPA Test Acceptability Criteria, the client will be notified immediately (within 24 hours), and a retest will be conducted at the laboratory's expense.

Once per year, per client request for annual species sensitivity testing, Ramboll Environ shall conduct acute and chronic WET tests using *C. dubia,* fathead minnow, and *D. pulex* per RFP Number 14-15-154.

Any additional testing not pertaining to scheduled quarterly testing, accelerated tests or retests for failure to meet test acceptance criteria will be performed for quality assurance purposes. These tests will be conducted at the request and expense of the City.

All tests will be conducted per EPA guidelines or permit, whichever is more stringent, with respect to number of recommended replicates, number of organisms exposed per replicate and type of dilution water utilized. Side-by-side testing will be conducted with an additional control water dilution series meeting the historical hardness, alkalinity and pH of the receiving water body when requested by the City. The City will be responsible for submitting to Ramboll Environ specific information regarding receiving water history.

■ QA/QC Measures and EPA DMR/QA Study Results

Ramboll Environ operates under the most recent USEPA standards and practices. In addition to following all USEPA applicable principles and guidelines, day-to-day laboratory activities utilize Ramboll Environ's extensive Quality Assurance Manual and Standard Operating Procedure, which is provided on a CD located in Attachment 1. Because the Quality Assurance Manual and Standard Operating Procedures are specific to Ramboll Environ, we ask that you do not distribute the document outside the bid process. Should Ramboll Environ not be awarded the contract, discard the disk/document in its entirety.

As part of Ramboll Environ's commitment to quality, we participate annually in USEPA's DMR/QA study. The results for the last two years' worth of testing are located in Attachment 2. The next annual study will be conducted in May-June 2015.

Evaluation Criteria No. 2 - Qualifications

■ Personnel

Ramboll Environ's Ecotoxicology Group operates a widely-certified WET testing laboratory at its facilities in Brentwood (Nashville), Tennessee, located at 201 Summit View Drive, Lower Level, Brentwood, TN 37027. A full-time professional staff of six (in addition to one laboratory technician) is available to conduct the tests and support data interpretation for this project. Additionally, Ecotoxicology staffers are experienced in recognizing and interpreting toxic symptoms exhibited during WET tests that indicate the presence of different toxicants (e.g., fish pathogens, polymers). Staff members are also highly experienced in the conduct of Toxicity Identification Evaluation (TIE) and Toxicity Reduction Evaluation (TRE) studies should persistent toxicity be observed. Various engineers and permitting and regulatory specialists are also available to support the project. Key personnel and project roles are summarized below. Additional materials related to Ramboll Environ's Ecotoxicology Department such as our state and NELAP certificates are presented in Attachment 3.

Principal in Charge - Ms. Robin Garibay, REM, will serve as the Principal in Charge, responsible for insuring that adequate company resources are available for successful project execution. Ms. Garibay has over 25 years'

experience as a regulatory specialist and consultant to industries and municipalities in the area of water quality-based permitting and the design and implementation of technical studies to achieve regulatory compliance. She was instrumental in supporting industry comments on the Great Lakes Initiative (GLI) and is very familiar with the technical and regulatory processes.

Department Manager (Brentwood, TN) - Mr. Scott Hall, is Manager of the Ecotoxicology Department. He is responsible for overall project implementation and success. Mr. Hall is highly experienced in WET testing and TIE procedures, having published over 22 peer-reviewed articles in these and similar areas. Mr. Hall serves on the Society of Ramboll Environmental Toxicology and Chemistry's (SETAC's) Expert Advisory Panel for WET assessment, and has served as Project Manager on numerous WET assessment and NPDES permitting projects.

Project Manager (Brentwood, TN) - Ms. Liza Heise will serve as Project Manager, overseeing day-to-day project implementation, monitoring test results real-time and serving as client liaison. Ms. Heise is also the QA officer and as such is responsible for the annual participation in USEPA Discharge Monitoring Report (DMR) studies. She has over 20 years' experience in WET testing and has given several professional presentations on WET testing. She has served as the project manager on numerous projects involving toxicological assessments in support of NPDES permit compliance.

Project Scientists (Brentwood, TN) - Mr. Richard Lockwood is the QC officer in the Ecotoxicology Department and also is knowledgeable of the workings of municipal wastewater treatment facilities. Mr. Lockwood has 22 years professional experience in WET testing and related fields.

Project Staff (Brentwood, TN) – Ms. Lauren Minella, Ms. Amanda Hawkins, and Ms. Hanna Minella will serve as project staff. All are experienced in WET testing, and this is their exclusive role at Ramboll Environ. Their primary roles include maintenance of aquatic cultures, and setup and maintenance of WET tests. They are all also involved in the Quality Assurance/Quality Control programs and other general laboratory duties.

Resumes will be provided upon request. Sufficient time will be given to each aspect of the project by key staff to ensure high-quality testing and data.

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Evaluation Criteria No. 3 - WET Test References

Ms. Valerie Housel
City of San Bernardino – Water Dept.
399 Chandler Place
San Bernardino, California 92408
909-384-5117

Mr. Tracy Martin
Fort Valley Utility Commission
WWTP
500 Anthoine Street
Fort Valley, Georgia 31030
478-825-7701 X 286

Mr. Rick Moore
San Jacinto River Authority
2436 Saw Mill Road
The Woodlands, Texas 77380
281-367-9511

Mr. Ron Poindexter
Angus Chemical Company
Louisiana Highway 2
Sterlington, Louisiana 71280
318-665-5293

Mr. Mark T. Skeen
Wastewater Treatment Facility Supervisor
LaFollette Utilities Board
412 Pleasant Ridge Rd
LaFollette, TN 37766
423-562-3376

Subcontractors

Ramboll Environ utilizes Continental Analytical Services (CAS), Inc. specifically for pesticide analysis. CAS is a full service laboratory offering a wide range of analytical services to industry, governmental agencies, municipalities and consultants. CAS offers a full range of testing capabilities for volatile and semi-volatile organics, metals, microbial, and general chemistry parameters. The Laboratory is centrally located in Salina, Kansas and qualifies as a small business.

Continental participates in the EPA Water Supply (WS) and Water Pollution (WP) Studies to maintain certifications by the States of Kansas, Oklahoma, Missouri, and several other states for the analysis of drinking water, wastewater, and solid and hazardous waste. Continental is NELAP accredited.

The state of New Mexico has no certification process for analytical laboratories.

Ramboll Environ Laboratory Facilities and Certifications

All of the toxicity testing will be performed at the Ramboll Environ Brentwood, Tennessee toxicological laboratory. Ramboll Environ has operated its current WET testing laboratory since 1986. In 1990, the laboratory was expanded to over 450 square feet of testing and culture facilities. The approximate 1,000 WET tests per year that are conducted include standard WET tests and TIE/TRE studies.

Twenty-seven states do not have formal WET testing certification. Of those that do, Ramboll Environ's WET testing certifications are:

- Arkansas (#88-0621)
- California (#2465)
- Florida (#87896)
- Iowa (#386)
- Kentucky (KY98014)
- Louisiana (#02061)
- North Carolina (#003)
- Oklahoma (#9973)
- South Carolina (#84015)
- Texas (T104704410-09-TX)
- Virginia (#2232)
- Wisconsin (#399050850)
- West Virginia(#351)
- National Ramboll Environmental Laboratory Accreditation Program (NELAP)

Ramboll Environ also participates in the following states formal review processes:

- Alabama, Georgia, Indiana, Michigan, Nevada, and Tennessee

The state of New Mexico has no WET testing certification program or formal review process.

Evaluation Criteria No. 4 – Principle in Charge and Project Schedule

Ms. Robin Garibay, REM, will serve as the Principal in Charge, responsible for insuring that adequate company resources are available for successful project execution. Ms. Garibay has over 25 years' experience as a regulatory specialist and consultant to industries and municipalities in the area of water quality-based permitting and the design and implementation of technical studies to achieve regulatory compliance. She is very familiar with technical and regulatory processes. Contact information:

Ms. Robin Garibay, Principal
4350 Fairfax Dr, Ste 300
Arlington, VA 22203-1619
703-522-9662

Project Schedule

All testing results will be reported in a letter-style report format within two weeks of the testing end date. The deliverable will consist of the letter-style report, a summary of DMR reportable results, the Region VI EPA test summary forms, statistical analysis and raw data as well as the reference toxicant and control performance charts.

Tests will be scheduled for the entire year at once. Should a conflict arise with either the City or the laboratory, appropriate parties will be contacted and the test schedule will be adjusted.

Project staff is responsible for the preparation of test materials and organisms. Daily testing procedures will be the responsibility of the project staff and/or project scientists. The project manager is responsible for reporting of results.

Evaluation Criteria No. 5 – Examples of Municipal Contracts

Ms. Valerie Housel City of San Bernardino – Water Dept. 399 Chandler Place San Bernardino, California 92408 909-384-5117	The City of San Bernardino has been testing with Ramboll Environ for over 10 years. Testing for their Water Reclamation facility consists of monthly chronic *C. dubia* tests.
Mr. Mark T. Skeen Wastewater Treatment Facility Supervisor LaFollette Utilities Board 412 Pleasant Ridge Rd LaFollette, TN 37766 423-562-3376	The LaFollette Utilities Board Wastewater Treatment Plant requires quarterly chronic fathead minnow and *C. dubia* toxicity testing. Ramboll Environ has been meeting their WET testing needs since 2012.

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Mr. Rick Moore San Jacinto River Authority 2436 Saw Mill Road The Woodlands, Texas 77380 281-367-9511	Ramboll Environ has served as the primary toxicity testing laboratory for San Jacinto River Authority for over 13 years. Plant One required testing consists of quarterly chronic fathead minnow and *C. dubia* exposures along with semi-annual screening tests with fathead minnow and *D. pulex*. State and EPA summary testing forms are a requirement and part of the deliverable.
Mr. Ron Poindexter Angus Chemical Company Louisiana Highway 2 Sterlington, Louisiana 71280 318-665-5293	Angus Chemical Company's permit requires acute definitive *D. pulex* testing on multiple outfalls. The testing is conducted on a semi-annual basis. Included in the deliverable are state summary sheets.
Ms. Jennifer Gambill TestAmerica, Inc. 2960 Foster Creighton Drive Nashville, Tennessee 37204 615-301-5041	Ramboll Environ conducted WET testing with stormwater discharges collected in Connecticut. The discharges required acute (48-hr.) definitive toxicity tests performed with *D. pulex*. The deliverable included State of Connecticut test summary sheets.

■ Costs

As requested, the costs are submitted in a separate sealed envelope marked Cost Proposal for RFP Number 14-15-154.

■ Terms and Conditions

A purchase order may be issued for project implementation. Proof of insurance will be provided if awarded the contract.

RAMBOLL ENVIRON

Closing

Ramboll Environ appreciates the opportunity to be of service to the City of Las Cruces. Please contact Liza Heise at (615) 277-7517 with any questions regarding this proposal.

Yours sincerely,

Liza Heise
Project Manager
Water Quality and Ecotoxicology

D+1 615-277-7517
lheise@Environcorp.com

Robin Richards, REM
Department Head
Water Management and Planning

RAMBOLL ENVIRON

ATTACHMENT 1

QUALITY ASSURANCE MANUAL AND STANDARD OPERATING PROCEDURE

RAMBOLL ENVIRON

ATTACHMENT 2

DMR/QA DATA

PERFORMANCE EVALUATION

SIGMA-ALDRICH RTC

Scheduled Study

WETT 33

WETT / DMRQA 33

25-Mar-2013 through 8-Jul-2013

RT2158
RTC Labcode

TN00907
US EPA Labcode

Participating Laboratory:

ENVIRON
Teri Horsley
201 Summit View Drive
Lower Level Lab
Brentwood TN 37027

Thank you for participating in study WETT 33. Additional information about this study may be found online at www.rt-corp.com/reporting. If it is your first time to our website give me a call and I will simplify the initial registration process. If you have any questions or comments about this study please contact me:

Sigma-Aldrich, RTC Inc.
2931 Soldier Springs Rd.
Laramie, WY 82070 USA
1-307-742-5452
www.rt-corp.com

Sincerely,

Jennifer Duhon
Proficiency Testing Coordinator

Dataset

Dataset 1

Include in DMRQA Study

Evaluations from this dataset will be included in DMRQA 33.

Accreditors

Evaluations of this dataset will be sent to the accreditor(s) listed below using your laboratory's labcode listed above each accrediting agency. If any of the information listed below is incorrect, please contact RTC immediately.

Accrediting Labcode TN00907
Arizona DHS

499 Lab Certification
250 North 17th Avenue
Phoenix AZ 85007
UNITED STATES

Accrediting Labcode TN00907
Arkansas DEQ

220 Jane Hurley
Laboratory Certification
5301 Northshore Drive
North Little Rock AR 72218
UNITED STATES

Accrediting Labcode TN00907
California Department of Public Health
Environmental Lab Accred. Program Branch

223 Fred Choske
850 Marina Bay Parkway
Bldg. P, 1st Floor, MS 7103
Richmond CA 94804
UNITED STATES

Accrediting Labcode TN00907
Florida Department of Health

252 Stephen Arms
PO Box 210
1217 Pearl Street
Jacksonville FL 32231
UNITED STATES

Accrediting Labcode TN00907
Iowa DNR

506 Kathy Lee
PO Box 14573
DesMoines IA 50306-3573
UNITED STATES

Accrediting Labcode TN00907
Kansas Dept. of Health & Environment

299 Lab Certification
Forbes Field
Bldg #740
Topeka KS 66620
UNITED STATES

Accrediting Labcode TN00907
Minnesota DOH
Environmental Laboratory Certification Program
338 Lab Certification
PO Box 64899
St Paul MN 55164-0899
UNITED STATES

Accrediting Labcode TN00907
North Carolina DENR

386 Lab Certification
DWQ Lab Section
1623 Mail Service Center
Raleigh NC 27699-1623
UNITED STATES

Accrediting Labcode TN00907
Oklahoma DEQ
Laboratory Certification
401 David Caldwell
P.O. Box 1677
Oklahoma City OK 73101
UNITED STATES

Accrediting Labcode TN00907
South Carolina DHEC
Office of Env. Lab Certification
425 Susan Butts
WP/RCRA
2600 Bull Street
Columbia SC 29201
UNITED STATES

Accrediting Labcode TN00907
Texas CEQ

434 Frank Jamison
Quality Assurance/Laboratory Accreditation
PO Box 13087 (MC-176)
Austin TX 78711-3087
UNITED STATES

Accrediting Labcode TN00907
Virginia DEQ

467 Joanne Lam
DMR-QA Coordinator
P.O. Box 1105
Richmond VA 23218
UNITED STATES

Accrediting Labcode TN00907
West Virginia DEP
Division of Water and Waste Management
474 Tommy Smith
601 57th St. SE
Charleston WV 25304
UNITED STATES

SIGMA-ALDRICH RTC

Accrediting Labcode TN00907
Wisconsin DNR

477 Richard Mealy
101 S. Webster St.
PO Box 7921
Madison WI 53703
UNITED STATES

RTC is accredited to perform PT programs for the scope of accreditation to ISO/IEC 17043 under ACLASS cerficate AP-1469.

ACLASS ACCREDITED
PROFICIENCY TESTING PROVIDER

Test Code 13 / EPA Method 2000

Test Code 13 / EPA Method 2000 (DMRQA WET)

Method: EPA 2000.0 (2002)

Method Number 10264809

	Result Units	Assigned Value	Accept. Window	Z	Evaluation
Fathead Minnow Acute MHSF 25° - LC50 [1, 2, 3, 4] 754 / WET013-1EA - Lot LRAA0893	**15.93** %	**17.0**	7.46 to 26.6	**-0.22**	**Acceptable**
	Evaluation Criteria - **5**				*Evaluation Parameter* - **deviations:2**

Test Code 15 / EPA Method 1000

Test Code 15 / EPA Method 1000 (DMRQA WET)

Method: EPA 1000

Method Number 10114600

	Result Units	Assigned Value	Accept. Window	Z	Evaluation
Fathead Minnow Chronic MHSF - Survival NOEC [1, 2, 3, 4] 756 / WET015-1EA - Lot LRAA0895	**25** %	**12.5**	6.25 to 25	**0.50**	**Acceptable**
	Evaluation Criteria - **8**				*Evaluation Parameter* - **a:1, b:0, c:0, d:25**
Fathead Minnow Chronic MHSF - Growth IC25 (ON) [1, 2, 3, 4] 808 / WET015-1EA - Lot LRAA0895	**36.63** %	**23.4**	7.34 to 39.5	**1.64**	**Acceptable**
	Evaluation Criteria - **5**				*Evaluation Parameter* - **deviations:2**
Fathead Minnow Chronic MHSF - Growth NOEC (ON) [1, 2, 3, 4] 810 / WET015-1EA - Lot LRAA0895	**25** %	**12.5**	6.25 to 25	**1.00**	**Acceptable**
	Evaluation Criteria - **8**				*Evaluation Parameter* - **a:1, b:0, c:0, d:12.5**

Test Code 19 / EPA Method 2002

Test Code 19 / EPA Method 2002 (DMRQA WET)

Method: EPA 2002.0 - Ceriodaphnia dubia, 48-hr Acute, renewal, MHSF 25°C (2002)

Method Number 10214809

	Result Units	Assigned Value	Accept. Window	Z	Evaluation
Ceriodaphnia Acute MHSF 25° - LC50 [1, 2, 3, 4] 764 / WET019-1EA - Lot LRAA0897	**>100** %	**61.1**	18.4 to 104		**Acceptable**
	Evaluation Criteria - **5**				*Evaluation Parameter* - **deviations:2**

Test Code 21 / EPA Method 1002

Test Code 21 / EPA Method 1002 (DMRQA WET)

Method: EPA 1002

Method Number 10115001

	Result Units	Assigned Value	Accept. Window	Z	Evaluation
Ceriodaphnia Chronic MHSF - Survival NOEC [1, 2, 3, 4] 766 / WET021-1EA - Lot LRAA0898	**12.5** %	**12.5**	6.25 to 25	**0.00**	**Acceptable**
	Evaluation Criteria - **8**				*Evaluation Parameter* - **a:1, b:0, c:0, d:12.5**
Ceriodaphnia Chronic MHSF - Reproduction IC25 [1, 2, 3, 4] 767 / WET021-1EA - Lot LRAA0898	**8.06** %	**9.90**	0.854 to 19.8	**-0.37**	**Acceptable**
	Evaluation Criteria - **5**				*Evaluation Parameter* - **deviations:2**
Ceriodaphnia Chronic MHSF - Reproduction NOEC [1, 2, 3, 4] 768 / WET021-1EA - Lot LRAA0898	**6.25** %	**6.25**	<6.25 to 12.5	**0.00**	**Acceptable**
	Evaluation Criteria - **8**				*Evaluation Parameter* - **a:1, b:0, c:0, d:12.5**

Test Code 32 / EPA Method 2021

Test Code 32 / EPA Method 2021 (DMRQA WET)

Method: EPA 2021.0

Method Number 9954621

	Result Units	Assigned Value	Accept. Window	Z	Evaluation
Daphnia Magna Acute MHSF 25° - LC50 [1, 2, 3, 4] 786 / WET032-1EA - Lot LRAA0899	**18.63** %	**18.8**	3.04 to 34.7	**-0.02**	**Acceptable**
	Evaluation Criteria - **5**				*Evaluation Parameter* - **deviations:2**

Test Code 38 / EPA Method 2021

Test Code 38 / EPA Method 2021 (DMRQA WET)

Method: EPA 2021.0

Method Number 9954621

	Result Units	Assigned Value	Accept. Window	Z	Evaluation
Daphnia Pulex MHSF 25° - LC50 [1, 2, 3, 4] 794 / WET038-1EA - Lot LRAA0899	**24.46** %	**30.1**	3.68 to 59.0	**-0.39**	**Acceptable**
	Evaluation Criteria - **5**				*Evaluation Parameter* - **deviations:2**

Test Code 47 / EPA Method 1004

Test Code 47 / EPA Method 1004 (DMRQA WET)

Method: EPA 1004.0 - Sheepshead Minnow, 7-day Chronic, daily renewal, 40-fathom

Method Number 10216805

	Result Units	Assigned Value	Accept. Window	Z	Evaluation
Sheepshead Minnow Chronic 40 F - Survival NOEC [1, 4] 805 / WET047-1EA - Lot LRAA0903	**50** %	**25.0**	12.5 to 50.0	**2.00**	**Acceptable**
	Evaluation Criteria - **8**				*Evaluation Parameter* - **a:1, b:0, c:0, d:12.5**
Sheepshead Minnow Chronic 40 F - Growth IC25 (ON) [1, 2, 3, 4] 820 / WET047-1EA - Lot LRAA0903	**92.31** %	**33.2**	6.00 to 78.9	**2.59**	**Not Acceptable**
	Evaluation Criteria - **5**				*Evaluation Parameter* - **deviations:2**
Sheepshead Minnow Chronic 40 F - Growth NOEC (ON) [1, 2, 3, 4] 822 / WET047-1EA - Lot LRAA0903	**50** %	**25.0**	12.50 to 50.0	**2.00**	**Acceptable**
	Evaluation Criteria - **8**				*Evaluation Parameter* - **a:1, b:0, c:0, d:12.5**

End of Dataset !

Sample Information

Fathead Minnow Acute MHSF 25ºC

WET013-1EA / Lot LRAA0893

	Units	Gravimetric Value	Study Mean	Study Std. Dev.
Fathead Minnow Acute MHSF 25° - LC50 754 Test Code 13 / EPA Method 2000	%	20.5 ± 0.025	17.0	4.79

Fathead Minnow, 7Day, MHSF

WET015-1EA / Lot LRAA0895

	Units	Gravimetric Value	Study Mean	Study Std. Dev.
Fathead Minnow Chronic MHSF - Survival NOEC 756 Test Code 15 / EPA Method 1000	%	12.5 ± 0.0012		
Fathead Minnow Chronic MHSF - Growth IC25 (ON) 808 Test Code 15 / EPA Method 1000	%	27.0	23.4	8.05
Fathead Minnow Chronic MHSF - Growth IC25 (SN) 809 Test Code 15 / EPA Method 1000	%	36.0	29.7	18.4
Fathead Minnow Chronic MHSF - Growth NOEC (ON) 810 Test Code 15 / EPA Method 1000	%	12.5		
Fathead Minnow Chronic MHSF - Growth NOEC (SN) 811 Test Code 15 / EPA Method 1000	%	12.5	15.7	10.1

Ceriodaphnia Acute MHSF 25ºC

WET019-1EA / Lot LRAA0897

	Units	Gravimetric Value	Study Mean	Study Std. Dev.
Ceriodaphnia Acute MHSF 25° - LC50 764 Test Code 19 / EPA Method 2002	%	53.2	61.1	21.3

Ceriodaphnia Chronic MHSF

WET021-1EA / Lot LRAA0898

	Units	Gravimetric Value	Study Mean	Study Std. Dev.
Ceriodaphnia Chronic MHSF - Survival NOEC 766 Test Code 21 / EPA Method 1002	%	12.5		
Ceriodaphnia Chronic MHSF - Reproduction IC25 767 Test Code 21 / EPA Method 1002	%	8.54	9.90	4.96
Ceriodaphnia Chronic MHSF - Reproduction NOEC 768 Test Code 21 / EPA Method 1002	%	6.25		

Daphnia Magna Acute MHSF 25ºC

WET032-1EA / Lot LRAA0899

	Units	Gravimetric Value	Study Mean	Study Std. Dev.
Daphnia Magna Acute MHSF 25° - LC50 788 Test Code 32 / EPA Method 2021	%	17.0	18.8	7.90

Daphnia Pulex Acute MHSF 25ºC

WET038-1EA / Lot LRAA0899

	Units	Gravimetric Value	Study Mean	Study Std. Dev.
Daphnia Pulex MHSF 25° - LC50 794 Test Code 38 / EPA Method 2021	%	36.8 ± 0.0115	30.1	14.5

Sheepshead Minnow Chronic 40 Fathoms Seawater

WET047-1EA / Lot LRAA0903

	Units	Gravimetric Value	Study Mean	Study Std. Dev.
Sheepshead Minnow Chronic 40 F - Survival NOEC 805 Test Code 47 / EPA Method 1004	%	25.0	20.3	13.3
Sheepshead Minnow Chronic 40 F - Growth IC25 (ON) 820 Test Code 47 / EPA Method 1004	%	60.0	33.2	22.8
Sheepshead Minnow Chronic 40 F - Growth IC25 (SN) 821 Test Code 47 / EPA Method 1004	%	50.0		
Sheepshead Minnow Chronic 40 F - Growth NOEC (ON) 822 Test Code 47 / EPA Method 1004	%	25.0		

Sheepshead Minnow Chronic 40 Fathoms Seawater
WET047-1EA / Lot LRAA0903

(continued)

	Units	Gravimetric Value	Study Mean	Study Std. Dev.
Sheepshead Minnow Chronic 40 F - Growth NOEC (SN) 823 Test Code 47 / EPA Method 1004	%	50.0	62.5	50.8

Definitions and Interpretation of Statistical Analysis:

Assigned Value: Value attributed to a particular quantity and accepted, sometimes by convention, as having an uncertainty appropriate for a given purpose. See ISO/IEC 17043 for additional information. In general the assigned value is the value used to assess proficiency and may or may not be the made to value (gravimetric value).

Accept. Window: The range of values that constitute acceptable performance for a laboratory participating in this PT study.

Z: A Z-Score tells how a single data point compares to normal data. A Z-Score says not only whether a point was above or below average, but how unusual the measurement is. Generally, a method result with a Z-Score less than |2| is considered to be in control, a Z-Score between |2| and |3| is considered 'Questionable', but still within control and a Z greater than |3| is considered not acceptable and the method is out of control. Calculated as **Z = (Reported Value - Assigned Value) / Proficiency Std. Dev.**

Proficiency Std. Dev.: Standard deviation calculated based on **Evaluation Criteria.**

Study Mean: Statistical study mean calculated using a robust statisitical model (RTC employs the 'Biweight Program'). Robust statistical techniques to minimize the influence that extreme results can have on estimates of the mean and standard deviation. NOTE - These techniques assign less weight to extreme results, rather than eliminate them from a data set.

Study Std. Dev.: Standard deviation calculated from study data using robust statisicals (Biweight).

Gravimetric Value: The 'prepared to' value, determined by gravimetric means. The uncertainty associated to this value is standard uncertainty and based on RTC's gravimetric tolerances.

Evaluation Criteria:

1 - Regression Equation - Acceptance windows based on TNI adopted equation of proficiency value +/- 3 proficiency standard deviations and check limits of proficiency value +/- 2 proficiency standard deviations. Proficiency value and proficiency standard deviation are calculated from gravimetric variables a, b, c, & d as proficiency value = a * gravimetric + b and proficiency standard deviation = c * gravimetric + d.

2 - Study Robust Mean and c,d regression - Acceptance windows based on TNI adopted equation of proficiency value +/- 3 proficiency standard deviations and check limits of proficiency value +/- 2 proficiency standard deviations. Proficiency value and proficiency standard deviation calculated from robust study mean and variables c & d as proficiency value = robust mean and proficiency standard deviation = c * proficiency value + d.

3 - Fixed Limits - Acceptance windows based on span of gravimetric percentage from gravimetric as gravimetric +/- gravimetric * percentage.

4 - Adjustable Fixed Limits - Acceptance windows base on a span of gravimetric percentage from gravimetric as gravimetric +/- gravimetric * lowPercentage where gravimetric < break and gravimetric +/- gravimetric * highPercentage where gravimetric >= break.

5 - Study Statistics - Acceptance windows based on a number of standard deviations span from the study mean as study mean +/- (deviations * standard deviation).

6 - Log Transform Statistics - Acceptance windows based on lognormal distributed data. Acceptance windows = mean(lognormal) +/- span * standard deviation(lognormal).

7 - Reserved

8 - Regression Equation 2SD - Acceptance windows based on EPA equation of proficiency value +/- 2 proficiency standard deviations. Proficiency value and proficiency standard deviation are calculated from gravimetric variables a, b, c, & d as proficiency value = a * gravimetric + b and proficiency standard deviation = c * gravimetric + d. Generally reserved for drinking water studies.

Proficiency Test Item Preparation, Homogeneity and Stability Assessment - RTC uses proprietary and published methods for the manufacture, homogeneity and stability testing of proficiency test items. RTC's proficiency test materials meet requirements of

ISO Guide 34. For more information contact RTC. Additionally RTC complies with TNI Volume 3 'General Requirements for Environmental Proficiency Test Providers', EL-V3-2009, 2009 for all TNI Fields of Proficiency Testing analytes.

Metrological Traceability - All preparations are made using balances calibrated annually traceable to NIST standards. Where appropriate analytical measurements are traceable through an unbroken chain to NIST standards, or a Certified Reference Material manufactured under ISO Guide 34 in conjunction with ISO/IEC 17025.

Statistical Analysis - RTC uses robust statistics to calculate study means and standard deviations - Reference - Kafadar, K, *A Biweight Approach to the One-Sample Problem*, Journal of the American Statistical Association, Vol. 77, No. 378, June, 1982, pp. 416-424.

Additional Information - Go to www.rt-corp.com/reporting for additional information on summary statistics for specific methods, advice on the interpretation of the statistical analysis, and additional comments/recommendations. If you failed an analyte it may be required to perform a corrective action and/or retest. RTC recommends that you contact your accreditation body for specific instruction.

Program analyte accrediting footnotes

1 NELAC Compliant, covered by RTC's ACLASS Proficiency Testing Provider accreditation, Cert. AP-1469

4 ISO 17043 Accredited, covered by RTC's ACLASS Proficiency Testing Provider accreditation, Cert AP-1469

Authorizing Officer: _____
Patrick Brumfield, ASQ CQA
QA Manager

Date: 7/19/2013

This section of the report is for informational purposes only.
If unsure about specific accreditation requirements please contact your state coordinator.

UNACCEPTABLE ANALYTES

RTC Lab Code: **RT2158**

Sheepshead Minnow Chronic 40 Fathoms Seawater
WET-047

Analytes		Method
Sheepshead Minnow Chronic 40 F - Growth IC25 (ON)	10216805	EPA 1004.0 - Sheapshead Minnow, 7-day Chronic, daily renewal, 40-fathoms SW 25°C (2002)

PASS RATE

Number of Reported Results:	**13**
Number of Passing Results:	**12**
Pass Rate:	**92.31%**

PERFORMANCE EVALUATION

SIGMA-ALDRICH RTC

Scheduled Study

WETT 34

WETT / DMRQA 34

21-Mar-2014 through 11-Jul-2014

RT2158
RTC Labcode

TN00907
US EPA Labcode

Participating Laboratory:

ENVIRON
Teri Horsley
201 Summit View Drive
Lower Level Lab
Brentwood TN 37027

Thank you for participating in study WETT 34. Additional information about this study may be found online at www.rt-corp.com/reporting. If it is your first time to our website give me a call and I will simplify the initial registration process. If you have any questions or comments about this study please contact me:

Sigma-Aldrich, RTC Inc.
2931 Soldier Springs Rd.
Laramie, WY 82070 USA
1-307-742-5452
www.rt-corp.com

Sincerely,

Jennifer Duhon
Proficiency Testing Coordinator

Dataset

DMR34WET

Include in DMRQA Study

Evaluations from this dataset will be included in DMRQA 34.

Accreditors

Evaluations of this dataset will be sent to the accreditor(s) listed below using your laboratory's labcode listed above each accrediting agency. If any of the information listed below is incorrect, please contact RTC immediately.

Accrediting Labcode TN00907
Arizona DHS

499 Lab Certification
250 North 17th Avenue
Phoenix AZ 85007
UNITED STATES

Accrediting Labcode TN00907
Arkansas DEQ

220 Jane Hurley
Laboratory Certification
5301 Northshore Drive
North Little Rock AR 72218
UNITED STATES

Accrediting Labcode TN00907
California Department of Public Health
Environmental Lab Accred. Program Branch

223 Fred Choske
850 Marina Bay Parkway
Bldg. P, 1st Floor, MS 7103
Richmond CA 94804
UNITED STATES

Accrediting Labcode TN00907
Florida Department of Health

252 Stephen Arms
PO Box 210
1217 Pearl Street
Jacksonville FL 32231
UNITED STATES

Accrediting Labcode TN00907
Iowa DNR

506 Kathy Lee
PO Box 14573
DesMoines IA 50306-3573
UNITED STATES

Accrediting Labcode TN00907
Kansas Dept. of Health & Environment

299 Lab Certification
Forbes Field
Bldg #740
Topeka KS 66620
UNITED STATES

Accrediting Labcode TN00907
Minnesota DOH
Environmental Laboratory Certification Program
338 Lab Certification
PO Box 64899
St Paul MN 55164-0899
UNITED STATES

Accrediting Labcode TN00907
North Carolina DENR

386 Lab Certification
DWQ Lab Section
1623 Mail Service Center
Raleigh NC 27699-1623
UNITED STATES

Accrediting Labcode TN00907
Oklahoma DEQ
Laboratory Certification
401 David Caldwell
P.O. Box 1677
Oklahoma City OK 73101
UNITED STATES

Accrediting Labcode TN00907
South Carolina DHEC
Office of Env. Lab Certification
425 Susan Butts
WP/RCRA
2600 Bull Street
Columbia SC 29201
UNITED STATES

Accrediting Labcode TN00907
Texas CEQ

434 Frank Jamison
Quality Assurance/Laboratory Accreditation
PO Box 13087 (MC-176)
Austin TX 78711-3087
UNITED STATES

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467 Joanne Lam
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P.O. Box 1105
Richmond VA 23218
UNITED STATES

Accrediting Labcode TN00907
West Virginia DEP
Division of Water and Waste Management
474 Tommy Smith
601 57th St. SE
Charleston WV 25304
UNITED STATES

Accrediting Labcode TN00907
Wisconsin DNR

477 Richard Mealy
101 S. Webster St.
PO Box 7921
Madison WI 53703
UNITED STATES

RTC is accredited to perform PT programs for the scope of accreditation to ISO/IEC 17043 under ACLASS cerfticate AP-1469.

ACCREDITED
PROFICIENCY TESTING PROVIDER

Test Code 13 / EPA Method 2000

Test Code 13 / EPA Method 2000 (DMRQA WET)

Method: EPA 2000.0 (2002)

Method Number 10264809

	Result Units	Assigned Value	Accept. Window	Z	Evaluation
Fathead Minnow Acute MHSF 25° - LC50 [1, 2, 3, 4] 754 / WET013-1EA - Lot LRAA3994	**31.86** %	**28.8**	12.1 to 45.5	**0.37**	**Acceptable**
	Evaluation Criteria - **5**				*Evaluation Parameter* - **deviations:2**

Test Code 15 / EPA Method 1000

Test Code 15 / EPA Method 1000 (DMRQA WET)

Method: EPA 1000

Method Number 10114600

	Result Units	Assigned Value	Accept. Window	Z	Evaluation
Fathead Minnow Chronic MHSF - Survival NOEC [1, 2, 3, 4] 756 / WET015-1EA - Lot LRAA3999	**<6.25** %	**6.25**	<6.25 to 12.5		**Acceptable**
	Evaluation Criteria - **8**				*Evaluation Parameter* - **a:1, b:0, c:0, d:25**
Fathead Minnow Chronic MHSF - Growth IC25 (ON) [1, 2, 3, 4] 808 / WET015-1EA - Lot LRAA3999	**10.01** %	**4.44**	0.345 to 11.1	**1.66**	**Acceptable**
	Evaluation Criteria - **5**				*Evaluation Parameter* - **deviations:2**
Fathead Minnow Chronic MHSF - Growth NOEC (ON) [1, 2, 3, 4] 810 / WET015-1EA - Lot LRAA3999	**12.5** %	**6.25**	<6.25 to 12.5	**0.50**	**Acceptable**
	Evaluation Criteria - **8**				*Evaluation Parameter* - **a:1, b:0, c:0, d:12.5**

Test Code 19 / EPA Method 2002

Test Code 19 / EPA Method 2002 (DMRQA WET)

Method: EPA 2002.0 - Ceriodaphnia dubia, 48-hr Acute, renewal, MHSF 25°C (2002)

Method Number 10214809

	Result Units	Assigned Value	Accept. Window	Z	Evaluation
Ceriodaphnia Acute MHSF 25° - LC50 [1, 2, 3, 4] 764 / WET019-1EA - Lot LRAA4001	**>100** %	**64.1**	10.0 to 125		**Acceptable**
	Evaluation Criteria - **5**				*Evaluation Parameter* - **deviations:2**

Test Code 21 / EPA Method 1002

Test Code 21 / EPA Method 1002 (DMRQA WET)

Method: EPA 1002

Method Number 10115001

	Result Units	Assigned Value	Accept. Window	Z	Evaluation
Ceriodaphnia Chronic MHSF - Survival NOEC [1, 2, 3, 4] 766 / WET021-1EA - Lot LRAA4002	**<6.25** %	**6.25**	<6.25 to 12.5		**Acceptable**
	Evaluation Criteria - **8**				*Evaluation Parameter* - **a:1, b:0, c:0, d:12.5**
Ceriodaphnia Chronic MHSF - Reproduction IC25 [1, 2, 3, 4] 767 / WET021-1EA - Lot LRAA4002	**2.17** %	**4.34**	0 to 9.38	**-0.86**	**Acceptable**
	Evaluation Criteria - **5**				*Evaluation Parameter* - **deviations:2**
Ceriodaphnia Chronic MHSF - Reproduction NOEC [1, 2, 3, 4] 768 / WET021-1EA - Lot LRAA4002	**<6.25** %	**6.25**	<6.25 to 12.5		**Acceptable**
	Evaluation Criteria - **8**				*Evaluation Parameter* - **a:1, b:0, c:0, d:12.5**

Test Code 32 / EPA Method 2021

Test Code 32 / EPA Method 2021 (DMRQA WET)

Method: EPA 2021.0

Method Number 9954621

	Result Units	Assigned Value	Accept. Window	Z	Evaluation
Daphnia Magna Acute MHSF 25° - LC50 [1, 2, 3, 4] 788 / WET032-1EA - Lot LRAA4003	**18.05** %	**12.3**	0.780 to 24.7	**0.93**	**Acceptable**
	Evaluation Criteria - **5**				*Evaluation Parameter* - **deviations:2**

Test Code 38 / EPA Method 2021

Test Code 38 / EPA Method 2021 (DMRQA WET)

Method: EPA 2021.0

Method Number 9954621

	Result Units	Assigned Value	Accept. Window	Z	Evaluation
Daphnia Pulex MHSF 25° - LC50 [1, 2, 3, 4] 794 / WET038-1EA - Lot LRAA4003	**12.94** %	**15.8**	1.83 to 31.0	**-0.38**	**Acceptable**
	Evaluation Criteria - **5**				*Evaluation Parameter* - **deviations:2**

Test Code 42 / EPA Method 2007

Test Code 42 / EPA Method 2007 (DMRQA WET)

Method: EPA 2007.0

Method Number 0

	Result Units	Assigned Value	Accept. Window	Z	Evaluation
Mysid Acute 40 F 25° - LC50 [1, 2, 3, 4] 798 / WET042-1EA - Lot LRAA4004	**7.1** %	**9.02**	4.47 to 13.6	**-0.85**	**Acceptable**
	Evaluation Criteria - **5**				*Evaluation Parameter* - **deviations:2**

Test Code 47 / EPA Method 1004

Method: EPA 1004.0 - Sheapshead Minnow, 7-day Chronic, daily renewal, 40-fathom

Method Number 10216805

	Result Units	Assigned Value	Accept. Window	Z	Evaluation
Sheepshead Minnow Chronic 40 F - Survival NOEC [1, 4] 805 / WET047-1EA - Lot LRAA4007	**6.25** %	**6.25**	0 to 12.5	**0.00**	**Acceptable**
	Evaluation Criteria - **8**				*Evaluation Parameter* - **a:1, b:0, c:0, d:12.5**
Sheepshead Minnow Chronic 40 F - Growth IC25 (ON) [1, 2, 3, 4] 820 / WET047-1EA - Lot LRAA4007	**18.5** %	**18.1**	3.86 to 32.3	**0.06**	**Acceptable**
	Evaluation Criteria - **5**				*Evaluation Parameter* - **deviations:2**
Sheepshead Minnow Chronic 40 F - Growth NOEC (ON) [1, 2, 3, 4] 822 / WET047-1EA - Lot LRAA4007	**12.5** %	**12.5**	6.25 to 25	**0.00**	**Acceptable**
	Evaluation Criteria - **8**				*Evaluation Parameter* - **a:1, b:0, c:0, d:12.5**

End of DMR34WET

Sample Information

Fathead Minnow Acute MHSF 25°C
WET013-1EA / Lot LRAA3994

	Units	Gravimetric Value	Study Mean	Study Std. Dev.
Fathead Minnow Acute MHSF 25° - LC50 754 Test Code 13 / EPA Method 2000	%	33.4	28.8	8.36

Fathead Minnow, 7Day, MHSF
WET015-1EA / Lot LRAA3999

	Units	Gravimetric Value	Study Mean	Study Std. Dev.
Fathead Minnow Chronic MHSF - Survival NOEC 758 Test Code 15 / EPA Method 1000	%	6.25		
Fathead Minnow Chronic MHSF - Growth IC25 (ON) 808 Test Code 15 / EPA Method 1000	%	3.45	4.44	3.35
Fathead Minnow Chronic MHSF - Growth IC25 (SN) 809 Test Code 15 / EPA Method 1000	%	6.50	6.57	4.19
Fathead Minnow Chronic MHSF - Growth NOEC (ON) 810 Test Code 15 / EPA Method 1000	%	6.25		
Fathead Minnow Chronic MHSF - Growth NOEC (SN) 811 Test Code 15 / EPA Method 1000	%	6.25		

Ceriodaphnia Acute MHSF 25°C
WET019-1EA / Lot LRAA4001

	Units	Gravimetric Value	Study Mean	Study Std. Dev.
Ceriodaphnia Acute MHSF 25° - LC50 764 Test Code 19 / EPA Method 2002	%	100	64.1	30.7

Ceriodaphnia Chronic MHSF
WET021-1EA / Lot LRAA4002

	Units	Gravimetric Value	Study Mean	Study Std. Dev.
Ceriodaphnia Chronic MHSF - Survival NOEC 766 Test Code 21 / EPA Method 1002	%	6.25		
Ceriodaphnia Chronic MHSF - Reproduction IC25 767 Test Code 21 / EPA Method 1002	%	4.34	1.61	0.640
Ceriodaphnia Chronic MHSF - Reproduction NOEC 768 Test Code 21 / EPA Method 1002	%	6.25		

Daphnia Magna Acute MHSF 25°C
WET032-1EA / Lot LRAA4003

	Units	Gravimetric Value	Study Mean	Study Std. Dev.
Daphnia Magna Acute MHSF 25° - LC50 788 Test Code 32 / EPA Method 2021	%	7.80	12.3	6.20

Daphnia Pulex Acute MHSF 25°C
WET038-1EA / Lot LRAA4003

	Units	Gravimetric Value	Study Mean	Study Std. Dev.
Daphnia Pulex MHSF 25° - LC50 794 Test Code 38 / EPA Method 2021	%	18.3	15.8	7.59

Mysid Acute 40 Fathoms Seawater 25°C
WET042-1EA / Lot LRAA4004

	Units	Gravimetric Value	Study Mean	Study Std. Dev.
Mysid Acute 40 F 25° - LC50 798 Test Code 42 / EPA Method 2007	%	8.70	9.02	2.27

Sheepshead Minnow Chronic 40 Fathoms Seawater
WET047-1EA / Lot LRAA4007

	Units	Gravimetric Value	Study Mean	Study Std. Dev.

Sheepshead Minnow Chronic 40 Fathoms Seawater
WET047-1EA / Lot LRAA4007
(continued)

	Units	Gravimetric Value	Study Mean	Study Std. Dev.
Sheepshead Minnow Chronic 40 F - Survival NOEC 805 Test Code 47 / EPA Method 1004	%	6.25		
Sheepshead Minnow Chronic 40 F - Growth IC25 (ON) 820 Test Code 47 / EPA Method 1004	%	22.6	18.1	7.11
Sheepshead Minnow Chronic 40 F - Growth IC25 (SN) 821 Test Code 47 / EPA Method 1004	%	28.3		
Sheepshead Minnow Chronic 40 F - Growth NOEC (ON) 822 Test Code 47 / EPA Method 1004	%	12.5	10.00	6.04
Sheepshead Minnow Chronic 40 F - Growth NOEC (SN) 823 Test Code 47 / EPA Method 1004	%	50.0		

Definitions and Interpretation of Statistical Analysis:

Assigned Value: Value attributed to a particular quantity and accepted, sometimes by convention, as having an uncertainty appropriate for a given purpose. See ISO/IEC 17043 for additional information. In general the assigned value is the value used to assess proficiency and may or may not be the made to value (gravimetric value).

Accept. Window: The range of values that constitute acceptable performance for a laboratory participating in this PT study.

Z: A Z-Score tells how a single data point compares to normal data. A Z-Score says not only whether a point was above or below average, but how unusual the measurement is. Generally, a method result with a Z-Score less than |2| is considered to be in control, a Z-Score between |2| and |3| is considered 'Questionable', but still within control and a Z greater than |3| is considered not acceptable and the method is out of control. Calculated as **Z = (Reported Value - Assigned Value) / Proficiency Std. Dev.**

Proficiency Std. Dev.: Standard deviation calculated based on **Evaluation Criteria.**

Study Mean: Statistical study mean calculated using a robust statisitical model (RTC employs the 'Biweight Program'). Robust statistical techniques to minimize the influence that extreme results can have on estimates of the mean and standard deviation. NOTE - These techniques assign less weight to extreme results, rather than eliminate them from a data set.

Study Std. Dev.: Standard deviation calculated from study data using robust statisicals (Biweight).

Gravimetric Value: The 'prepared to' value, determined by gravimetric means. The uncertainty associated to this value is standard uncertainty and based on RTC's gravimetric tolerances.

Evaluation Criteria:

1 - Regression Equation - Acceptance windows based on TNI adopted equation of proficiency value +/- 3 proficiency standard deviations and check limits of proficiency value +/- 2 proficiency standard deviations. Proficiency value and proficiency standard deviation are calculated from gravimetric variables a, b, c, & d as proficiency value = a * gravimetric + b and proficiency standard deviation = c * gravimetric + d.

2 - Study Robust Mean and c,d regression - Acceptance windows based on TNI adopted equation of proficiency value +/- 3 proficiency standard deviations and check limits of proficiency value +/- 2 proficiency standard deviations. Proficiency value and proficiency standard deviation calculated from robust study mean and variables c & d as proficiency value = robust mean and proficiency standard deviation = c * proficiency value + d.

3 - Fixed Limits - Acceptance windows based on span of gravimetric percentage from gravimetric as gravimetric +/- gravimetric * percentage.

4 - Adjustable Fixed Limits - Acceptance windows base on a span of gravimetric percentage from gravimetric as gravimetric +/- gravimetric * lowPercentage where gravimetric < break and gravimetric +/- gravimetric * highPercentage where gravimetric >= break.

5 - Study Statistics - Acceptance windows based on a number of standard deviations span from the study mean as study mean +/- (deviations * standard deviation).

6 - Log Transform Statistics - Acceptance windows based on lognormal distributed data. Acceptance windows = mean(lognormal) +/- span * standard deviation(lognormal).

7 - Reserved

8 - Regression Equation 2SD - Acceptance windows based on EPA equation of proficiency value +/- 2 proficiency standard deviations. Proficiency value and proficiency standard deviation are calculated from gravimetric variables a, b, c, & d as proficiency value = a * gravimetric + b and proficiency standard deviation = c * gravimetric + d. Generally reserved for drinking water studies.

Proficiency Test Item Preparation, Homogeneity and Stability Assessment - RTC uses proprietary and published methods for the manufacture, homogeneity and stability testing of proficiency test items. RTC's proficiency test materials meet requirements of

ISO Guide 34. For more information contact RTC. Additionally RTC complies with TNI Volume 3 'General Requirements for Environmental Proficiency Test Providers', EL-V3-2009, 2009 for all TNI Fields of Proficiency Testing analytes.

Metrological Traceability - All preparations are made using balances calibrated annually traceable to NIST standards. Where appropriate analytical measurements are traceable through an unbroken chain to NIST standards, or a Certified Reference Material manufactured under ISO Guide 34 in conjunction with ISO/IEC 17025.

Statistical Analysis - RTC uses robust statistics to calculate study means and standard deviations - Reference - Kafadar, K, *A Biweight Approach to the One-Sample Problem*, Journal of the American Statistical Association, Vol. 77, No. 378, June, 1982, pp. 416-424.

Additional Information - Go to www.rt-corp.com/reporting for additional information on summary statistics for specific methods, advice on the interpretation of the statistical analysis, and additional comments/recommendations. If you failed an analyte it may be required to perform a corrective action and/or retest. RTC recommends that you contact your accreditation body for specific instruction.

Program analyte accrediting footnotes

1 NELAC Compliant, covered by RTC's ACLASS Proficiency Testing Provider accreditation, Cert. AP-1469

4 ISO 17043 Accredited, covered by RTC's ACLASS Proficiency Testing Provider accreditation, Cert AP-1469

Authorizing Officer: _____
Patrick Brumfield, ASQ CQA
QA Manager

Date: 7/31/2014

This section of the report is for informational purposes only.
If unsure about specific accreditation requirements please contact your state coordinator.

PASS RATE

Number of Reported Results:	**14**
Number of Passing Results:	**14**
Pass Rate:	**100.00%**

RAMBOLL ENVIRON

ATTACHMENT 3

STATE AND NELAP CERTIFICATES

Arkansas Department of Environmental Quality

Laboratory Certification Program

ENVIRON

Brentwood, TN

has earned certification by law in accordance with Code Annotated §8-2-201 et seq., the State Environmental Laboratory Certification Program Act for the following parameters:

Acute Toxicity
Chronic Toxicity

Laboratory ID: **88-0621**
Certificate Number: **14-073-0**
Issued Date: **31 December 2014**
Expired Date: **31 December 2015**

J. Ryan Benefield, P.E.
ADEQ Interim Director

Florida HEALTH

State of Florida

Department of Health, Bureau of Public Health Laboratories

This is to certify that

E87896

ENVIRON
201 SUMMIT VIEW DRIVE, SUITE 300
BRENTWOOD, TN 37027

has complied with Florida Administrative Code 64E-1,
for the examination of environmental samples in the following categories

NON-POTABLE WATER - TOXICITY

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and are on file at the Bureau of Public Health Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

Date Issued: July 01, 2014 Expiration Date: June 30, 2015

William H. Anderson, DHA, FACHE, Director
Division of Emergency Preparedness and Community Support
DH Form 1697, 7/04
NON-TRANSFERABLE E87896-11-07/01/2014
Supersedes all previously issued certificates

Laboratory Scope of Accreditation

Attachment to Certificate #: E87896-11, expiration date June 30, 2015. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87896 **EPA Lab Code: TN00907** **(615) 377-4775**

E87896
ENVIRON
201 Summit View Drive, Suite 300
Brentwood, TN 37027

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Ceriodaphnia dubia	EPA/600/4-91/ 002 (1002.0)	Toxicity	NELAP	3/10/2003
Pimephales promelas	EPA/600/4-91/ 002 (1000.0)	Toxicity	NELAP	3/10/2003

Clients and Customers are urged to verify the laboratory's current certification status with the Environmental Laboratory Certification Program. **Issue Date: 7/1/2014** **Expiration Date: 6/30/2015**

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY

Is hereby granting a Louisiana Environmental Laboratory Accreditation to

ENVIRON
201 Summit View Dr Lower Level
Brentwood, Tennessee 37027

Agency Interest No. 30735

According to the Louisiana Administrative Code, Title 33, Part I, Subpart 3, LABORATORY ACCREDITATION, the State of Louisiana formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed in the attachment.

The laboratory agrees to perform all analyses listed on this scope of accreditation according to the Part I, Subpart 3 requirements and acknowledges that continued accreditation is dependent on successful ongoing compliance with the applicable requirements of Part I. Please contact the Department of Environmental Quality, Louisiana Environmental Laboratory Accreditation Program (LELAP) to verify the laboratory's scope of accreditation and accreditation status.

Accreditation by the State of Louisiana is not an endorsement or a guarantee of validity of the data generated by the laboratory. To be accredited initially and maintain accreditation, the laboratory agrees to participate in two single-blind, single-concentration PT studies, where available, per year for each field of testing for which it seeks accreditation or maintains accreditation as required in LAC 33:I.4711.

Lourdes Iturralde, Administrator
Notifications and Accreditations Section
Public Participation & Permit Support Services Division

Certificate Number: 02061

Expiration Date: June 30, 2015
Issued On: July 1, 2014

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY
Issue Date: July 1, 2014

ENVIRON
AI Number: 30735
Expiration Date: June 30, 2015

201 Summit View Dr Lower Level, Brentwood, Tennessee 37027

Certificate Number: 02061

Air Emissions

Analyte	Method Name	Method Code	Type	AB
NONE	NONE	NONE	NONE	NONE

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
3460 - LC50 Survival	EPA 2002.0	2546	NELAP	LA
3315 - Ceriodaphnia dubia	EPA 1002	10115001	NELAP	LA
3472 - IC25 Biomass	EPA 1003	10115205	NELAP	LA
3477 - NOEC Biomass	EPA 1003	10115205	NELAP	LA
3315 - Ceriodaphnia dubia	EPA 2000	10213602	NELAP	LA
3340 - Cyprinella leedsi	EPA 2000	10213602	NELAP	LA
3460 - LC50 Survival	EPA 2000	10213602	NELAP	LA
3410 - Pimephales promelas	EPA 2000	10213602	NELAP	LA
3470 - IC25 (ON) Growth	EPA 1000.0 - Fathead minnow, 7-day Chronic, daily renewal, MHSF 25°C	10214207	NELAP	LA
3482 - IC25 Survival	EPA 1000.0 - Fathead minnow, 7-day Chronic, daily renewal, MHSF 25°C	10214207	NELAP	LA
3475 - NOEC (ON) Growth	EPA 1000.0 - Fathead minnow, 7-day Chronic, daily renewal, MHSF 25°C	10214207	NELAP	LA
3465 - NOEC Survival	EPA 1000.0 - Fathead minnow, 7-day Chronic, daily renewal, MHSF 25°C	10214207	NELAP	LA
3315 - Ceriodaphnia dubia	EPA 2002 Ceriodaphnia dubia Acute MHSF 25°C	10214809	NELAP	LA
3460 - LC50 Survival	EPA 2002 Ceriodaphnia dubia Acute MHSF 25°C	10214809	NELAP	LA
3480 - IC25 Reproduction	EPA 1002.0 - Ceriodaphnia dubia, 7-day Chronic, daily renewal, MHSF 25°C	10215006	NELAP	LA
3482 - IC25 Survival	EPA 1002.0 - Ceriodaphnia dubia, 7-day Chronic, daily renewal, MHSF 25°C	10215006	NELAP	LA
3485 - NOEC Reproduction	EPA 1002.0 - Ceriodaphnia dubia, 7-day Chronic, daily renewal, MHSF 25°C	10215006	NELAP	LA
3465 - NOEC Survival	EPA 1002.0 - Ceriodaphnia dubia, 7-day Chronic, daily renewal, MHSF 25°C	10215006	NELAP	LA
3460 - LC50 Survival	EPA 2021.0 - Daphnia magna, 48-hr Acute, nonrenewal, MHSF 25°C	10215415	NELAP	LA
3355 - Daphnia pulex	EPA 2021 Daphnia pulex Acute	10215608	NELAP	LA
3460 - LC50 Survival	EPA 2021.0 - Daphnia pulex, 48hr Acute, nonrenewal, MHSF 25°C	10215619	NELAP	LA
3325 - Chronic toxicity	EPA 1000.0	10252605	NELAP	LA
3470 - IC25 (ON) Growth	EPA 1000.0	10252605	NELAP	LA
3482 - IC25 Survival	EPA 1000.0	10252605	NELAP	LA
3475 - NOEC (ON) Growth	EPA 1000.0	10252605	NELAP	LA
3465 - NOEC Survival	EPA 1000.0	10252605	NELAP	LA
3410 - Pimephales promelas	EPA 1000.0	10252605	NELAP	LA
3325 - Chronic toxicity	EPA 1002.0	10253006	NELAP	LA
3480 - IC25 Reproduction	EPA 1002.0	10253006	NELAP	LA
3482 - IC25 Survival	EPA 1002.0	10253006	NELAP	LA
3485 - NOEC Reproduction	EPA 1002.0	10253006	NELAP	LA

Clients and Customers are urged to verify the laboratory's current certification status with the Louisiana Environmental Laboratory Accreditation Program.

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
3465 - NOEC Survival	EPA 1002.0	10253006	NELAP	LA
3472 - IC25 Biomass	EPA 1003.0 - Green Algae, 4-day Chronic, nonrenewal, 20% DMW 25°C	10253200	NELAP	LA
3477 - NOEC Biomass	EPA 1003.0 - Green Algae, 4-day Chronic, nonrenewal, 20% DMW 25°C	10253200	NELAP	LA
3420 - Selenastrum capricornutum	EPA 1003.0 - Green Algae, 4-day Chronic, nonrenewal, 20% DMW 25°C	10253200	NELAP	LA

Solid Chemical Materials

Analyte	Method Name	Method Code	Type	AB
NONE	NONE	NONE	NONE	NONE

Biological Tissue

Analyte	Method Name	Method Code	Type	AB
NONE	NONE	NONE	NONE	NONE

North Carolina Department of Environment and Natural Resources

Division of Water Resources
Biological Laboratory Certification Program

In accordance with provisions of §143-215.3(a) (10) and 15A NCAC 02H .1100

Does Hereby Certify That

ENVIRON International Corp.

has successfully demonstrated capability and proficiency in performing biological analyses for certified parameters and is qualified to report biological monitoring data to the Division of Water Resources for compliance with National Pollutant Discharge Elimination System regulations.

This certificate does not guarantee validity of all generated data. Certification does indicate that the methodology, equipment, quality control procedures, records, and the laboratory's proficiency in biological sampling and/or analyses have been examined and determined to be acceptable.

NCDENR

003

Biological Certificate Number

November 1, 2015

This Certificate Shall be Valid Until Date Above

Chief, Water Sciences Section

Oklahoma Department of Environmental Quality
Laboratory Accreditation Program

OKLAHOMA
DEPARTMENT OF ENVIRONMENTAL QUALITY
...for a clean, attractive, prosperous Oklahoma

State Laboratory ID: 9973
EPA ID: TN00907

Certificate #: 2014-116

ENVIRON

201 Summit View Dr. Suite 300
Brentwood, TN 37027

has been accredited for the examination of environmental samples for fields of accreditation listed on the laboratory's Fields of Accreditation.

Continued Accreditation is contingent upon successful on-going compliance with OAC 252:301 which was promulgated and adopted pursuant to the Oklahoma Environmental Quality Code (Code), 27AO.S. § 2-4-101 *et seq.* Specific methods and analytes accredited cited on the laboratory's Field of Accreditation.

The Field of Accreditation and reports of on-site inspections are on file at the Oklahoma DEQ, State Environmental Laboratory Services Division, Laboratory Accreditation Program, 707 N Robinson, P.O. Box 1677, Oklahoma City, Oklahoma 73101-1677, (405) 702-1000, www.deq.state.ok.us. Clients and customers may verify with this agency the laboratory's Accreditation status for particular methods and analytes.

ISSUED: 9/1/2014

EXPIRES: 8/31/2015

Chris J. Armstrong

Chris Armstrong, State Environmental Laboratory Services Division Director

David E Caldwell

David Caldwell, Laboratory Accreditation Program

This certificate is valid proof of Accreditation only when associated with its Field of Accreditation.

O K L A H O M A
DEPARTMENT OF ENVIRONMENTAL QUALITY
...for a clean, attractive, prosperous Oklahoma

Oklahoma Department of Environmental Quality
Laboratory Accreditation Program
Scope of Accreditation

ENVIRON
201 Summit View Dr. Suite 300
Brentwood, TN 37027
(615) 377-4775

Laboratory ID: TN00907
State Lab ID: 9973
Clean Water Program

Certificate Number: 2014-116
Date of Issue: 9/1/2014
Expiration Date: 8/31/2015

Has demonstrated the capability to analyze environmental samples in accordance with Oklahoma Rules 252:301 and is hereby granted CERTIFICATION FOR:

Matrix/Analyte	Method	Status	Notes
Non-Potable water			
Tox, chronic, fw organism	EPA 1000	Good Standing	
Chronic toxicity	EPA 1000.0	Good Standing	
Pimephales promelas	EPA 1000.0	Good Standing	
Tox, chronic, fw organism	EPA 1000.0	Good Standing	
Tox, chronic, fw organism	EPA 1001	Good Standing	
Ceriodaphnia dubia	EPA 1002	Good Standing	
Tox, chronic, fw organism	EPA 1002	Good Standing	
Ceriodaphnia dubia	EPA 1002.0	Good Standing	
Chronic toxicity	EPA 1002.0	Good Standing	
Tox, chronic, fw organism	EPA 1002.0	Good Standing	
Tox, chronic, fw organism	EPA 1003	Good Standing	
Pimephales promelas	EPA 2000.0	Good Standing	
Daphnia magna	EPA 2021.0 Daphnia Magna Acute MHSF 20°	Good Standing	
Tox, chronic, fw organism	EPA 2021.0 Daphnia Pulex Acute MHSF 20°	Good Standing	
Ceriodaphnia dubia	EPA Ceriodaphnia Acute MHSF 20°	Good Standing	
Ceriodaphnia dubia	EPA Ceriodaphnia Acute MHSF 25°	Good Standing	

Matrix/Analyte	Method	Status	Notes

Accredited Parameter Note Detail

David Eldridge

Authentication Signature

09/01/2014

Date

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

Environmental Laboratory Certification Program

In accordance with the provisions of Regulation 61-81, entitled "State Environmental Laboratory Certification Regulations"

ENVIRON INTERNATIONAL CORPORATION
201 SUMMIT VIEW DR LOWER LEVEL
BRENTWOOD, TENNESSEE 37027

is hereby certified to perform analyses as documented on the attached parameter list(s). This certification does not guarantee validity of data generated, but indicates the laboratory's adherence to prescribed methodology, quality control, records keeping, and reporting procedures. This certificate is the property of S.C. DHEC and must be surrendered upon demand. This certificate is non-transferable and is valid only for the parameters and methodology listed on the attached parameter list(s).

Laboratory Director: TERI HORSLEY
Certifying Authority: NC
Date of Issue: December 03, 2014
Date of Expiration: November 01, 2015
Certificate Number: 84015001

Director
Office of Environmental Laboratory Certification

CR-010021 2/11

Texas Commission on Environmental Quality

NELAP-Recognized Laboratory Accreditation is hereby awarded to

ENVIRON International Corporation

201 Summit View Drive, Suite 300
Brentwood, TN 37027-4645

in accordance with Texas Water Code Chapter 5, Subchapter R, Title 30 Texas Administrative Code Chapter 25, and the National Environmental Laboratory Accreditation Program.

The laboratory's scope of accreditation includes the fields of accreditation that accompany this certificate. Continued accreditation depends upon successful ongoing participation in the program. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current location(s) and accreditation status for particular methods and analyses (www.tceq.texas.gov/goto/lab). Accreditation does not imply that a product, process, system or person is approved by the Texas Commission on Environmental Quality.

Certificate Number: T104704410-14-5
Effective Date: 7/1/2014
Expiration Date: 6/30/2015

Executive Director Texas Commission on Environmental Quality

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

ENVIRON International Corporation

201 Summit View Drive, Suite 300
Brentwood, TN 37027-4645

Certificate: T104704410-14-5
Expiration Date: 6/30/2015
Issue Date: 7/1/2014

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Method	Analyte	AB	Analyte ID	Method ID
EPA 1000.0	Chronic toxicity	LA-DEQ	3325	10252605
EPA 1002.0	Chronic toxicity	LA-DEQ	3325	10253006
EPA 2000.0	Acute toxicity	LA-DEQ	3300	10264809
EPA 2002.0	Acute toxicity	LA-DEQ	3300	10214901
EPA 2021.0	Acute toxicity	LA-DEQ	3300	10215404

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF GENERAL SERVICES
DIVISION OF CONSOLIDATED LABORATORY SERVICES

Certifies that

VA Laboratory ID#: 460171
ENVIRON INTERNATIONAL CORPORATION

201 SUMMIT VIEW DR, LOWER LEVEL LAB
BRENTWOOD, TN 37027

Owner: ENVIRON INTERNATIONAL CORPORATION
Responsible Official: SAM SHELBY

Having met the requirements of 1 VAC 30-46
and the National Environmental Laboratory Accreditation Conference 2003 Standard

is hereby approved as an

Accredited Laboratory

As more fully described in the attached Scope of Accreditation

Effective Date: **June 15, 2014**
Expiration Date: **June 14, 2015**
Certificate # 2993

Denise M. Toney, Ph.D.
DGS Deputy Director for Laboratories, Acting

Continued accreditation status depends on successful ongoing participation in the program.
Certificate to be conspicuously displayed at the laboratory.
Not valid unless accompanied by a valid Virginia Environmental Laboratory Accreditation Program (VELAP) Scope of Accreditation.
Customers are urged to verify the laboratory's current accreditation status.

Certificate Not Transferable

Surrender Upon Revocation

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 2993

ENVIRON INTERNATIONAL CORPORATION
201 SUMMIT VIEW DR, LOWER LEVEL LAB
BRENTWOOD, TN 37027

Virginia Laboratory ID: 460171
Effective Date: June 15, 2014
Expiration Date: June 14, 2015

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 1000 (FW CHRONIC 7D S, G)	PIMEPHALES PROMELAS	LA DEQ
EPA 2000 (FW 48H LC50)	PIMEPHALES PROMELAS	LA DEQ
EPA 2002 (FW 48H NONRENEWAL LC50)	CERIODAPHNIA DUBIA	LA DEQ
SM 2340 C-1997	TOTAL HARDNESS AS CACO3	LA DEQ
SM 4500-NH3 D-1997	AMMONIA AS N	LA DEQ
EPA 1002 (FW CHRONIC 3-BROOD S, R)	CERIODAPHNIA DUBIA	LA DEQ
EPA 2002 (FW 48H LC50)	CERIODAPHNIA DUBIA	LA DEQ
SM 2320 B-1997	ALKALINITY AS CACO3	LA DEQ
SM 2510 B-1997	CONDUCTIVITY	LA DEQ

This Scope of Accreditation must accompany the Certificate issued by Virginia DCLS with the same Certificate Number indicated above.

Exhibit B Compensation

Ramboll Environ US Corporation
Cost Proposal

RAMBOLL ENVIRON

WATER

City of Las Cruces
Attn: Purchasing Section/Bid Clerk
700 N. Main Street, 3rd Floor Room 3134
Las Cruces, NM 88001

RFP NUMBER 14-15-154

COST PROPOSAL FOR WHOLE EFFLUENT TOXICITY TESTING FOR THE JACOB HANDS WSTEWATER TREATMENT FACILITY (PERMIT NO. NM0023311) AND EAST MESA WATER RECLAMATION FACILITY (PERMIT NO. NM0030872)

Date 15/May/2015

Ramboll Ramboll Environ
201 Summit View Drive
Suite 300
Brentwood, TN 37027
USA

T +1 615 277 7570
F +1 615 377 4976
www.ramboll-Ramboll Environ.com

Ramboll Environ US Corporation (Ramboll Environ) is pleased to submit to you this cost proposal in response to your request for chronic toxicity testing for the Jacob Hands Wastewater Treatment Facility and for the East Mesa Water Reclamation Facility in the City of Las Cruces, New Mexico.

Cost

The costs for the definitive (five dilution) Whole Effluent Toxicity (WET) testing, chronic and acute, are broken down in the following table. Each price is on a per species per test basis.

Item	Cost
Fathead minnow (chronic)	$1100
Ceriodaphnia dubia (chronic)	$1100
Organophosphate pesticide analysis (diazinon)	$200
Other costs associated with services related to WET testing.	$0

The above costs cover the shipping of sample kits (sample collection containers, chain-of-custody forms, other paperwork, and

cooler liner) to the facility for sample collection and three copies of the finished report. The cost does not include shipping the containers from the facility to Ramboll Environ.

■ Closing

Ramboll Environ appreciates the opportunity to be of service to the City of Las Cruces. Please contact Liza Heise at (615) 277-7517 with any questions regarding this proposal.

Yours sincerely,

Liza Heise
Project Manager
Water Quality and Ecotoxicology

D+1 615-277-7517
lheise@Environcorp.com

Robin Richards, REM
Department Head
Water Management and Planning