

**CONTRACT MA-080-12010821  
FOR  
WATER QUALITY ANALYTICAL SERVICES**

THIS aggregate Contract MA-080-12010821 for Water Quality Analytical Services, (hereinafter referred to as "Contract") is made and entered into as of the date fully executed by and between the County of Orange, OC Public Works, a political subdivision of the State of California, (hereinafter referred to as "County") and Truesdail Laboratories, Inc., (hereinafter referred to as "Contractor"), with County and Contractor sometimes individually referred to as ("Party"), or collectively referred to as ("Parties").

**RECITALS**

WHEREAS, County and Contractor are entering into this aggregate Contract for Water Quality Analytical Services under a firm fixed price Contract;

WHEREAS, the County solicited the scope of products and services as set forth herein, and Contractor has represented that it is qualified to provide scope of products and services to the County; and,

WHEREAS, Contractor agrees to provide products and services as more specifically described in the Scope of Work, attached hereto as Attachment A and incorporated herein; and,

WHEREAS, County agrees to pay Contractor the fees as further set forth in Contractor's Pricing, attached hereto as Attachment B and incorporated herein;

**ARTICLES**

NOW, THEREFORE, the Parties mutually agree as follows:

1. **Scope of Contract:** This Contract, including attachments, specify the contractual terms and conditions by which the Contractor shall provide to the County Water Quality Analytical Services under a firm fixed rate Contract, as set forth herein.
2. **Contract Term:** ~~This Contract shall commence upon execution of all necessary signatures or upon the approval of the Orange County Board of Supervisors, whichever occurs later, and shall continue for one (1) year from that date unless otherwise terminated as provided herein. This Contract may be renewed upon expiration of the initial term, for four (4) additional one year periods, upon mutual agreement of both Parties. The County is not obligated to give a reason or notice if it elects not to renew. Renewal amendments may require approval of the County Board of Supervisors.~~

**AMENDMENT #1 (RENEWAL)**

Contract shall be effective December 20, 2012 and shall continue for one year from that date, unless otherwise terminated as provided herein. This Contract may be renewed upon expiration of the initial term, for three (3) additional years, upon mutual agreement of both parties. The County is not obligated to give a reason or notice if it elects not to renew. Renewal amendments may require County Board of Supervisors approval.

**AMENDMENT #2 (RENEWAL)**

Contract shall be effective December 20, 2013 and shall continue for one year from that date, unless otherwise terminated as provided herein. This Contract may be renewed upon expiration of the initial term, for two (2) additional years, upon mutual agreement of both parties. The County is not obligated to give a reason or notice if it elects not to renew. Renewal amendments may require County Board of Supervisors approval.

**AMENDMENT #3 (RENEWAL)**

Contract shall be effective December 20, 2014 and shall continue for one year from that date, unless otherwise terminated as provided herein. This Contract may be renewed upon expiration of the initial term, for one (1) additional year, upon mutual agreement of both parties. The County is not obligated to give a reason or notice if it elects not to renew. Renewal amendments may require County Board of Supervisors approval.

**AMENDMENT #4 (RENEWAL)**

Contract shall be effective December 20, 2015 and shall continue for one year from that date, unless otherwise terminated as provided herein. Renewal amendments may require County Board of Supervisors approval

3. **Contingency of Funds:** Contractor acknowledges that funding or portions of funding for this Contract may be contingent upon state budget approval; receipt of funds from, and/or obligation of funds by, the state of California to County; and inclusion of sufficient funding for the services hereunder in the budget approved by County's Board of Supervisors for each fiscal year covered by this Contract. If such approval, funding or appropriations are not forthcoming, or are otherwise limited, County may immediately terminate or modify this Contract without penalty.
4. **Usage:** No guarantee is given by the County to the contractor regarding usage of this contract. Usage figures, if provided, are approximate, based upon the last usage. The contractor agrees to supply services and/or commodities requested, as needed by the County of Orange, at prices listed in the contract, regardless of quantity requested.
5. **Precedence:** The Contract documents consist of this Contract and attachments. In the event of a conflict between or among the Contract documents, the order of precedence shall be the provisions of the main body of this Contract, i.e., those provisions set forth in the recitals and articles of this Contract, and then the attachments.
6. **Contractor's Project Manager and Key Personnel:** Contractor shall appoint a Project Manager, as specified in Article 24, to act as liaison between the County and the Contractor during the term of this Contract and to direct the Contractor's efforts in fulfilling Contractor's obligations under this Contract. This Project Manager shall be subject to approval by the County and shall not be changed without the written consent of the County's Project Manager, which consent shall not be unreasonably withheld.

The Contractor's Project Manager and Key Personnel shall be assigned to this Contract for the duration of this Contract and shall diligently pursue all work and services to meet the project time lines. Contractor's Key Personnel are those individuals who report directly to the Contractor's Project Manager.

7. **County's Project Manager:** The County shall appoint a Project Manager, as specified in Article 24, to act as liaison between the County and the Contractor during the term of this Contract. The County's Project Manager shall coordinate the activities of the County staff assigned to work with the Contractor.

The County's Project Manager shall have the right to require the removal and replacement of the Contractor's Project Manager and Key Personnel under this Contract. The County's Project Manager shall notify the Contractor in writing of such action. The Contractor shall accomplish the removal within 14 calendar days after written notice by the County's Project Manager. The County is not required to provide any reason, rationale or additional factual information if it elects to request any specific Contractor Project Manager or Key Personnel be removed from performing services under this Contract. The County's Project Manager shall review and approve the appointment of the

replacement for the Contractor's Project Manager and Personnel. Said approval shall not be unreasonably withheld.

8. **Contractor's Personnel:** The Contractor warrants that all persons employed to provide service under this Contract have satisfactory past work records indicating their ability to accept the kind of responsibility anticipated under this Contract. All Contractor's personnel shall be required to wear uniforms, badges and/or other means of identification which are to be issued and provided by the Contractor and must be worn at all times while working on County property. The County Project Manager must be notified in writing, within seven days of notification of award of Contract, of the uniform and/or badges and/or other identification to be worn by employees prior to beginning work and notified in writing seven days prior to any changes in this procedure.
9. **Conflict of Interest:** The County of Orange Board of Supervisors' policy prohibits its employees from engaging in activities involving a conflict of interest. The Contractor shall not, during the period of this Contract, employ any County employee for any purpose. The Contractor shall exercise reasonable care and diligence to prevent any actions or conditions that could result in a conflict with the best interests of the County. This obligation shall apply to the Contractor; the Contractor's employees, agents, and relatives; sub-tier Consultants; and third parties associated with accomplishing work and services hereunder. The Contractor's efforts shall include, but not be limited to establishing precautions to prevent its employees or agents from making, receiving, providing or offering gifts, entertainment, payments, loans or other considerations which could be deemed to appear to influence individuals to act contrary to the best interests of the County.
10. **Expenditure Limit:** The Contractor shall notify the County Project Manager in writing when the expenditures against the Contract reach **75** percent of the dollar limit on the Contract. The County will not be responsible for any expenditure overruns and will not pay for work exceeding the dollar limit on the Contract unless an amendment to cover those costs has been issued and been approved by the Orange County Board of Supervisors.
11. **Conditions Affecting Work:** The Contractor shall be responsible for taking all steps reasonably necessary to ascertain the nature and location of the work to be performed under this Contract and to know the general conditions which can affect the work or the cost thereof. Any failure by the Contractor to do so will not relieve Contractor from responsibility for successfully performing the work without additional cost to the County. The County assumes no responsibility for any understanding or representations concerning the nature, location(s) or general conditions made by any of its officers or agents prior to the execution of this Contract, unless such understanding or representations by the County are expressly stated in the Contract.
12. **Child Support Enforcement Requirements:** Contractor is required to comply with the child support enforcement requirements of the County. Failure of the Contractor to comply with all federal, state, and local reporting requirements for child support enforcement or to comply with all lawfully served Wage and Earnings Assignment Orders and Notices of Assignment shall constitute a material breach of the Contract. Failure to cure such breach within 60 calendar days of notice from the County shall constitute grounds for termination of the Contract.
13. **Publication:** No copies of sketches, schedules, written documents, computer based data, photographs, maps or graphs, including graphic art work, resulting from performance or prepared in connection with this Contract, are to be released by Contractor and/or anyone acting under the supervision of Contractor to any person, partnership, company, corporation, or agency, without prior written approval by County, except as necessary for the performance of the services of this Contract. All press contacts, including graphic display information to be published in newspapers, magazines, etc., are to be administered only after County approval.

14. **News/Information Release:** Contractor agrees that it will not issue any news releases or make any contact with the media in connection with either the award of this Contract or any subsequent amendment of, or effort under this Contract. Contractors must first obtain review and approval of said news media contact from County through County's Project Manager. Any requests for interviews or information received by the media should be referred directly to County. Contractors are not authorized to serve as a media spokespersons for County projects without first obtaining permission from County Project Manager.
15. **Reports/Meetings:** In addition to the requirements set forth in the Scope of Work, Attachment A, upon County's request, the Contractor shall develop reports and any other relevant documents necessary to complete the services and requirements as set forth in this Contract. The County's Project Manager and the Contractor's Project Manager will meet on reasonable notice to discuss the Contractor's performance and progress under this Contract. If requested, the Contractor's Project Manager and other project personnel shall attend all meetings. The Contractor shall provide such information that is requested by the County for the purpose of monitoring progress under this Contract.
16. **Breach of Contract:** The failure of the Contractor to comply with any of the provisions, covenants or conditions of this Contract, shall constitute a material breach of this Contract. In such event the County may, and in addition to any other remedies available at law, in equity, or otherwise specified in this Contract:
  - a. Afford the Contractor written notice of the breach and ten calendar days or such shorter time that may be specified in this Contract within which to cure the breach;
  - b. Discontinue payment to the Contractor for and during the period in which the Contractor is in breach and offset against any monies billed by the Contractor but yet unpaid by the County those monies disallowed pursuant to the above.
  - c. Terminate the Contract immediately without penalty.
17. **Contract Disputes:** The Parties shall deal in good faith and attempt to resolve potential disputes informally. If the dispute concerning a question of fact arising under the terms of this Contract is not disposed of in a reasonable period of time by the Contractor's Project Manager and the County's Project Manager, such matter shall be brought to the attention of the County Deputy Purchasing Agent (DPA), as specified in Article 24 by way of the following process:
  - a. The Contractor shall submit to the County DPA a written demand for a final decision regarding the disposition of any dispute between the Parties arising under, related to, or involving this Contract, unless the County, on its own initiative, has already rendered such a final decision.
  - b. The Contractor's written demand shall be fully supported by factual information, and, if such demand involves a cost adjustment to the Contract, the Contractor shall include with the demand a written statement signed by a senior official indicating that the demand is made in good faith, that the supporting data are accurate and complete, and that the amount requested accurately reflects the Contract adjustment for which the Contractor believes the County is liable.
  - c. Pending the final resolution of any dispute arising under, related to, or involving this Contract, the Contractor agrees to diligently proceed with the performance of this Contract, including the delivery of goods and/or provision of services. The Contractor's failure to diligently proceed shall be considered a material breach of this Contract. Any final decision of the County shall be expressly identified as such, shall be in writing, and shall be

signed by the County DPA. If the County fails to render a decision within 90 days after receipt of the Contractor's demand, it shall be deemed a final decision adverse to the Contractor's contentions. The County's final decision shall be conclusive and binding regarding the dispute unless the Contractor commences action in a court of competent jurisdiction to contest such decision within 90 days following the date of the County's final decision or one year following the accrual of the cause of action, whichever is later.

18. **Contractor's Records:** The contractor shall keep true and accurate accounts, records, books and data which shall correctly reflect the business transacted by the contractor in accordance with generally accepted accounting principles. These records shall be stored in Orange County for a period of three years after final payment is received from the County. Storage of records in another county will require written approval from the County DPA.
19. **Audits/Inspections:** Contractor agrees to permit the County, which may include the Auditor-Controller or the Auditor-Controller's authorized representative (including auditors from a private auditing firm hired by the County), access during normal working hours to all books, accounts, records, reports, files, financial records, supporting documentation, including payroll and accounts payable/receivable records, and other papers or property of Contractor for the purpose of auditing or inspecting any aspect of performance under this Contract. The inspection and/or audit will be confined to those matters connected with the performance of the Contract including, but not limited to, the costs of administering the Contract. The County will provide reasonable notice of such an audit or inspection.

The County reserves the right to audit and verify the Contractor's records before final payment is made.

Contractor agrees to maintain such records for possible audit for a minimum of three years after final payment, unless a longer period of records retention is stipulated under this Contract or by law. Contractor agrees to allow interviews of any employees or others who might reasonably have information related to such records. Further, Contractor agrees to include a similar right to the County to audit records and interview staff of any subcontractor related to performance of this Contract.

Should the Contractor cease to exist as a legal entity, the Contractor's records pertaining to this Contract shall be forwarded to the surviving entity in a merger or acquisition or, in the event of liquidation, to the County's Project Manager.

20. **Orderly Termination:** Upon termination or other expiration of this Contract, each Party shall promptly return to the other Party all papers, materials, and other properties of the other held by each for purposes of execution of the Contract. In addition, each Party will assist the other Party in orderly termination of this Contract and the transfer of all assets, tangible and intangible, as may be necessary for the orderly, non-disruptive business continuation of each Party.
21. **Errors and Omissions:** All reports, files and other documents prepared and submitted by Contractor shall be complete and shall be carefully checked by the professional(s) identified by Contractor as Project Manager and personnel prior to submission to the County. Contractor agrees that County review is discretionary and Contractor shall not assume that the County will discover errors and/or omissions. If the County discovers any errors or omissions prior to approving Contractor's reports, files and other written documents, the reports, files or documents will be returned to Contractor for correction. Should the County or others discover errors or omissions in the reports, files or other written documents submitted by Contractor after County approval thereof, County approval of Contractor's reports, files or documents shall not be used as a defense by Contractor in any action between the County and Contractor, and the reports, files or documents will be returned to Contractor for correction.

22. **Ownership of Documents:** The County has permanent ownership of all directly connected and derivative materials produced under this Contract by the Contractor. All documents, reports and other incidental or derivative work or materials furnished hereunder shall become, and remain, the sole property of the County and may be used by the County as it may require without additional cost to the County. None of the documents, reports and other incidental or derivative work or furnished materials shall be used by the Contractor without the express written consent of the County.
23. **Title to Data:** All materials, documents, data or information obtained from the County data files or any County medium furnished to the Contractor in the performance of this Contract will at all times remain the property of the County. Such data or information may not be used or copied for direct or indirect use by the Contractor after completion or termination of this Contract without the express written consent of the County. All materials, documents, data or information, including copies, must be returned to the County at the end of this Contract.
24. **Notices:** Any and all notices, requests demands and other communications contemplated, called for, permitted, or required to be given hereunder shall be in writing, except through the course of the County's Project Manager and Contractor's Project Manager routine exchange of information and cooperation during the terms of the work and services. Any written communications shall be deemed to have been duly given upon actual in-person delivery, if delivery is by direct hand, or upon delivery on the actual day of receipt or no greater than four calendar days after being mailed by US certified or registered mail, return receipt requested, postage prepaid, whichever occurs first. The date of mailing shall count as the first day. All communications shall be addressed to the appropriate Party at the address stated herein or such other address as the Parties hereto may designate by written notice from time to time in the manner aforesaid.

County: OC Public Works Department,  
OC Watersheds Section  
Ted VonBitner, Project Manager  
2301 N. Glassell Street,  
Orange CA, 92865

Phone: 714.955.0600  
Email: Theodore.VonBitner@OCPW.OCgov.com

Cc: OC Public Works/Purchasing  
Attn: Sandy Romero, DPA  
300 N. Flower St. 8<sup>th</sup> Floor, Suite 838  
Santa Ana, CA 92703

Phone: 714.834.3280  
Sandy.Romero@OCPW.OCgov.com

Contractor: Truesdail Laboratories, Inc.  
Attn: Jeff Lee, Project Manager  
14201 Franklin Ave.  
Tustin, CA 92780

Phone: 714.730.6239  
Email: lee@truesdail.com

25. **Health and Safety Provisions:** Caution shall be exercised at all times for the protection of persons, including employees, and property. The safety provisions of applicable laws and building and

construction codes shall be observed. Work, materials, and equipment used, shall comply with the Occupational Safety & Health Administration (OSHA) requirements, and federal and state safety orders.

The Contractor shall have (at the work site) copies of, or suitable extracts of, "General Industry Safety Orders" issued by the California State Division of Industrial Safety. The Contractor shall comply with the provisions of these and all other applicable laws, ordinances, and regulations.

26. **Wage Rates:** Contractor shall post a copy of wage rates at the job site and shall pay the adopted prevailing wage as a minimum. Pursuant to the provisions of Section 1773 of the Labor Code of the State of California, the Board of Supervisors has obtained the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in this locality for each craft, classification, or type of workman needed to execute this Contract from the Director of the Department of Industrial Relations. These rates are on file with the Clerk of the Board of Supervisors. The Contractor shall comply with the provisions of Part 7, Chapter 1 of the California Labor Code including Section 1774, 1775, 1776 and 1813 of the Labor Code. Contractor shall keep accurate payroll records showing name, address, social security number, worker classification, straight time and overtime hours worked each day and week, and actual per diem wages. Payroll records shall be certified and available for inspection and furnished to the County with each invoice. [LC 1776]
27. **Governing Law and Venue:** This Contract has been negotiated and executed in the State of California and shall be governed by and construed under the laws of the State of California. In the event of any legal action to enforce or interpret this Contract, the sole and exclusive venue shall be a court of competent jurisdiction located in Orange County, California, and the Parties hereto agree to and do hereby submit to the jurisdiction of such court, notwithstanding Code of Civil Procedure section 394. Furthermore, the Parties specifically agree to waive any and all rights to request that an action be transferred for trial to another County.
28. **Entire Contract:** This Contract, including Attachments which are attached hereto and incorporated herein by this reference, when accepted by Contractor either in writing or by the shipment of any article or other commencement of performance hereunder, contains the entire Contract between the Parties with respect to the matters herein and there are no restrictions, promises, warranties or undertakings other than those set forth herein or referred to herein. No exceptions, alternatives, substitutes or revisions are valid or binding on County unless authorized by County in writing. Electronic acceptance of any additional terms, conditions or supplemental Contracts by any County employee or agent, including but not limited to installers of software, shall not be valid or binding on County unless accepted in writing County's Purchasing Agent or his designee.
29. **Amendments:** No alteration or variation of the terms of this Contract shall be valid unless made in writing and signed by the Parties; no oral understanding or agreement not incorporated herein shall be binding on either of the Parties; and no exceptions, alternatives, substitutes or revisions are valid or binding on County unless authorized by County in writing.
30. **Taxes:** Unless otherwise provided herein or by law, price quoted does not include California state sales or use tax.
31. **Delivery:** Time of delivery of goods or services is of the essence in this Contract. County reserves the right to refuse any goods or services and to cancel all or any part of the goods not conforming to applicable specifications, drawings, samples or description, or services that do not conform to the prescribed Scope of Work. Acceptance of any part of the order for goods shall not bind County to accept future shipments, nor deprive it of the right to return goods already accepted, at Contractor's expense. Overshipments and undershipments of goods shall be only as agreed to in writing by

County. Delivery shall not be deemed to be complete until all goods, or services, have actually been received and accepted in writing by County.

32. **Acceptance/Payment:** Unless otherwise agreed to in writing by County, 1) acceptance shall not be deemed complete unless in writing and until all the goods/services have actually been received, inspected, and tested to the satisfaction of County, and 2) payment shall be made in arrears after services have been provided.
33. **Warranty:** Contractor expressly warrants that the goods/services covered by this Contract are 1) free of liens or encumbrances, 2) merchantable and good for the ordinary purposes for which they are used, and 3) fit for the particular purpose for which they are intended. Acceptance of this order shall constitute an agreement upon Contractor's part to indemnify, defend and hold County and its indemnittees as identified in Article "61" below, and as more fully described in Article "61", harmless from liability, loss, damage and expense, including reasonable counsel fees, incurred or sustained by County by reason of the failure of the goods/services to conform to such warranties, faulty work performance, negligent or unlawful acts, and non-compliance with any applicable state or federal codes, ordinances, orders, or statutes, including the Occupational Safety and Health Act (OSHA) and the California Industrial Safety Act. Such remedies shall be in addition to any other remedies provided by law.
34. **Patent/Copyright Materials/Proprietary Infringement:** Unless otherwise expressly provided in this Contract, Contractor shall be solely responsible for clearing the right to use any patented or copyrighted materials in the performance of this Contract. Contractor warrants that any software as modified through services provided hereunder will not infringe upon or violate any patent, proprietary right, or trade secret right of any third party. Contractor agrees that, in accordance with the more specific requirement contained in Article "61" below, it shall indemnify, defend and hold County and County Indemnittees harmless from any and all such claims and be responsible for payment of all costs, damages, penalties and expenses related to or arising from such claim(s), including, but not limited to, attorney's fees, costs and expenses.
35. **Assignment or Subcontracting:** The terms, covenants, and conditions contained herein shall apply to and bind the heirs, successors, executors, administrators and assigns of the parties. Furthermore, neither the performance of this Contract nor any portion thereof may be assigned or subcontracted by Contractor without the express written consent of County. Any attempt by Contractor to assign or sub-contract the performance or any portion thereof of this Contract without the express written consent of County shall be invalid and shall constitute a breach of this Contract.
36. **Non-Discrimination:** In the performance of this Contract, Contractor agrees that it will comply with the requirements of Section 1735 of the California Labor Code and not engage nor permit any subcontractors to engage in discrimination in employment of persons because of the race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, or sex of such persons. Contractor acknowledges that a violation of this provision shall subject Contractor to all the penalties imposed for a violation of Anti-Discrimination Law or regulation, including but not limited to, Section 1720 et seq. of the California Labor Code.
37. **Termination:** In addition to any other remedies or rights it may have by law and those set forth in this Contract, County has the right to terminate this Contract without penalty immediately with cause or after 30 days' written notice without cause, unless otherwise specified. Cause shall be defined as any breach of Contract, any misrepresentation or fraud on the part of Contractor. Exercise by County of its right to terminate the Contract shall relieve County of all further obligations.
38. **Consent to Breach Not Waiver:** No term or provision of this Contract shall be deemed waived and no breach excused, unless such waiver or consent shall be in writing and signed by the Party claimed to have waived or consented. Any consent by any Party to, or waiver of, a breach by the other,



whether express or implied, shall not constitute consent to, waiver of, or excuse for any other different or subsequent breach.

39. **Remedies Not Exclusive:** The remedies for breach set forth in this Contract are cumulative as to one another and as to any other provided by law, rather than exclusive; and the expression of certain remedies in this Contract does not preclude resort by either Party to any other remedies provided by law.
40. **Independent Contractor:** Contractor shall be considered an independent Contractor and neither Contractor, its employees, nor anyone working for Contractor under this Contract shall be considered an agent or an employee of County. Neither Contractor, employees nor anyone working for Contractor under this Contract shall qualify for workers' compensation or other fringe benefits of any kind through County.
41. **Performance:** Contractor shall perform all work under this Contract, taking necessary steps and precautions to perform the work to County's satisfaction. Contractor shall be responsible for the professional quality, technical assurance, timely completion and coordination of all documentation and other goods/services furnished by Contractor under this Contract. Contractor shall perform all work diligently, carefully, and in a good and workman-like manner; shall furnish all labor, supervision, machinery, equipment, materials, and supplies necessary therefore; shall at its sole expense obtain and maintain all permits and licenses required by public authorities, including those of County required in its governmental capacity, in connection with performance of the work; and, if permitted to subcontract, shall be fully responsible for all work performed by subcontractors.
42. **Insurance:** Prior to the provision of services under this Contract, the contractor agrees to purchase all required insurance at contractor's expense and to deposit with the County Certificates of Insurance, including all endorsements required herein, necessary to satisfy the County that the insurance provisions of this Contract have been complied with and to keep such insurance coverage and the certificates therefore on deposit with the County during the entire term of this Contract. In addition, all subcontractors performing work on behalf of contractor pursuant to this Contract shall obtain insurance subject to the same terms and conditions as set forth herein for contractor.

All self-insured retentions (SIRs) and deductibles shall be clearly stated on the Certificate of Insurance. If no SIRs or deductibles apply, indicate this on the Certificate of Insurance with a 0 by the appropriate line of coverage. Any self-insured retention (SIR) or deductible in an amount in excess of \$25,000 (\$5,000 for automobile liability), shall specifically be approved by the County Executive Office (CEO)/Office of Risk Management.

If the contractor fails to maintain insurance acceptable to the County for the full term of this Contract, the County may terminate this Contract.

**Qualified Insurer**

Minimum insurance company ratings as determined by the most current edition of the **Best's Key Rating Guide/Property-Casualty/United States** or **ambest.com** shall be A- (Secure A.M. Best's Rating) and VIII (Financial Size Category).

The policy or policies of insurance must be issued by an insurer licensed to do business in the state of California (California Admitted Carrier). If the carrier is a non-admitted carrier in the state of California and does not meet or exceed an A.M. Best rating of A-/VIII, CEO/Office of Risk Management retains the right to approve or reject carrier after a review of the company's performance and financial ratings. If the non-admitted carrier meets or exceeds the minimum A.M. Best rating of A-/VIII, the agency can accept the insurance.

The policy or policies of insurance maintained by the Contractor shall provide the minimum limits and coverage as set forth below:

<u>Coverage</u>	<u>Minimum Limits</u>
Commercial General Liability	\$1,000,000 per occurrence \$2,000,000 aggregate
Automobile Liability including coverage for owned, non-owned and hired vehicles	\$1,000,000 per occurrence
Workers' Compensation	Statutory
Employers' Liability Insurance	\$1,000,000 per occurrence
Professional Liability Insurance or per occurrence	\$1,000,000 per claims made

**Required Coverage Forms**

The Commercial General Liability coverage shall be written on Insurance Services Office (ISO) form CG 00 01, or a substitute form providing liability coverage at least as broad.

The Business Auto Liability coverage shall be written on ISO form CA 00 01, CA 00 05, CA 0012, CA 00 20, or a substitute form providing coverage at least as broad.

**Required Endorsements**

The Commercial General Liability policy shall contain the following endorsements, which shall accompany the Certificate of insurance:

- 1) An Additional Insured endorsement using ISO form CG 2010 or CG 2033 or a form at least as broad naming the County of Orange, its elected and appointed officials, officers, employees, agents as Additional Insureds.
- 2) A primary non-contributing endorsement evidencing that the contractor's insurance is primary and any insurance or self-insurance maintained by the County of Orange shall be excess and non-contributing.

All insurance policies required by this Contract shall waive all rights of subrogation against the County of Orange and members of the Board of Supervisors, its elected and appointed officials, officers, agents and employees when acting within the scope of their appointment or employment.

The Workers' Compensation policy shall contain a waiver of subrogation endorsement waiving all rights of subrogation against the County of Orange, and members of the Board of Supervisors, its elected and appointed officials, officers, agents and employees.

All insurance policies required by this Contract shall give the County of Orange 30 days notice in the event of cancellation and 10 days for non-payment of premium. This shall be evidenced by policy provisions or an endorsement separate from the Certificate of Insurance.

If contractor's Professional Liability policy is a "claims made" policy, contractor shall agree to maintain professional liability coverage for two years following completion of Contract.

The Commercial General Liability policy shall contain a severability of interest's clause also known as a "separation of insureds" clause (standard in the ISO CG 0001 policy).

Insurance certificates should be forwarded to:

County of Orange, OC Public Works  
ATTN: Sandy Romero  
300 N. Flower, Suite 838  
Santa Ana, CA 92703

If the contractor fails to provide the insurance certificates and endorsements within seven days of notification by OC Public Works purchasing division, award may be made to the next qualified vendor.

County expressly retains the right to require Contractor to increase or decrease insurance of any of the above insurance types throughout the term of this Contract. Any increase or decrease in insurance will be as deemed by County of Orange Risk Manager as appropriate to adequately protect County.

County shall notify Contractor in writing of changes in the insurance requirements. If Contractor does not deposit copies of acceptable certificates of insurance and endorsements with County incorporating such changes within thirty days of receipt of such notice, this Contract may be in breach without further notice to Contractor, and County shall be entitled to all legal remedies.

The procuring of such required policy or policies of insurance shall not be construed to limit Contractor's liability hereunder nor to fulfill the indemnification provisions and requirements of this Contract, nor act in any way to reduce the policy coverage and limits available from the insurer.

43. **No Waiver by County:** The failure of County in any one or more instances to insist upon strict performance of any of the terms of this Contract or to exercise any option herein conferred, shall not be construed as a waiver or relinquishment to any extent of the right to assert or rely upon any such terms or option on any future occasion.
44. **Bills and Liens:** Contractor shall pay promptly all indebtedness for labor, materials and equipment used in performance of the work. Contractor shall not permit any lien or charge to attach to the work or the premises, but if any does so attach, Contractor shall promptly procure its release and, in accordance with the requirements of Article "68" below, indemnify, defend, and hold County harmless and be responsible for payment of all costs, damages, penalties and expenses related to or arising from or related thereto.
45. **Changes:** Contractor shall make no changes in the work or perform any additional work without the County's specific written approval.
46. **Change of Ownership:** Contractor agrees that if there is a change or transfer in ownership of Contractor's business prior to completion of this Contract, the new owners shall be required under terms of sale or other transfer to assume Contractor's duties and obligations contained in this Contract and complete them to the satisfaction of County..
47. **Force Majeure:** Contractor shall not be assessed with liquidated damages or unsatisfactory performance penalties during any delay beyond the time named for the performance of this Contract caused by any act of God, war, civil disorder, employment strike or other cause beyond its reasonable control, provided Contractor gives written notice of the cause of the delay to County within 36 hours of the start of the delay and Contractor avails himself of any available remedies.

48. **Confidentiality:** Contractor agrees to maintain the confidentiality of all County and County-related records and information pursuant to all statutory laws relating to privacy and confidentiality that currently exist or exist at any time during the term of this Contract. All such records and information shall be considered confidential and kept confidential by Contractor and Contractor's staff, agents and employees.
49. **Compliance with Laws:** Contractor represents and warrants that services to be provided under this Contract shall fully comply, at Contractor's expense, with all standards, laws, statutes, restrictions, ordinances, requirements, and regulations (collectively "laws"), including, but not limited to those issued by County in its governmental capacity and all other laws applicable to the services at the time services are provided to and accepted by County. Contractor acknowledges that County is relying on Contractor to ensure such compliance, and pursuant to the requirements of Article "61" below, Contractor agrees that it shall defend, indemnify and hold County and County Indemnitees harmless from all liability, damages, costs and expenses arising from or related to a violation of such laws.
50. **Freight (F.O.B. Destination):** Contractor assumes full responsibility for all transportation, transportation scheduling, packing, handling, insurance, and other services associated with delivery of all products deemed necessary under this Contract.
51. **Pricing:** The Contract price, as more fully set forth in Attachment B, shall include full compensation for providing all required goods in accordance with required specifications, or services as specified herein or when applicable, in the Contractors Pricing attached to this Contract, and no additional compensation will be allowed therefore, unless otherwise provided for in this Contract.
52. **Waiver of Jury Trial:** Each Party acknowledges that it is aware of and has had the opportunity to seek advise of counsel of its choice with respect to its rights to trial by jury, and each Party, for itself and its successors, creditors, and assigns, does hereby expressly and knowingly waive and release all such rights to trial by jury in any action, proceeding or counterclaim brought by any Party hereto against the other (and/or against its officers, directors, employees, agents, or subsidiary or affiliated entities) on or with regard to any matters whatsoever arising out of or in any way connected with this Contract and /or any other claim of injury or damage.
53. **Terms and Conditions:** Contractor acknowledges that it has read and agrees to all terms and conditions included in this Contract.
54. **Headings:** The various headings and numbers herein, the grouping of provisions of this Contract into separate clauses and paragraphs, and the organization hereof are for the purpose of convenience only and shall not limit or otherwise affect the meaning hereof.
55. **Severability:** If any term, covenant, condition or provision of this Contract is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions hereof shall remain in full force and effect and shall in no way be affected, impaired or invalidated thereby.
56. **Calendar Days:** Any reference to the word "day" or "days" herein shall mean calendar day or calendar days, respectively, unless otherwise expressly provided.
57. **Attorneys Fees:** In any action or proceeding to enforce or interpret any provision of this Contract, or where any provision hereof is validly asserted as a defense, each Party shall bear its own attorney's fees, costs and expenses.
58. **Interpretation:** This Contract has been negotiated at arm's length and between persons sophisticated and knowledgeable in the matters dealt with in this Contract. In addition, each Party has been represented by experienced and knowledgeable independent legal counsel of their own choosing, or has knowingly declined to seek such counsel despite being encouraged and given the opportunity to

do so. Each Party further acknowledges that they have not been influenced to any extent whatsoever in executing this Contract by any other Party hereto or by any person representing them, or both. Accordingly, any rule of law (including California Civil Code Section 1654) or legal decision that would require interpretation of any ambiguities in this Contract against the Party that has drafted it is not applicable and is waived. The provisions of this Contract shall be interpreted in a reasonable manner to effect the purpose of the Parties and this Contract.

59. **Authority:** The Parties to this Contract represent and warrant that this Contract has been duly authorized and executed and constitutes the legally binding obligation of their respective organization or entity, enforceable in accordance with its terms.
60. **Employee Eligibility Verification:** The Contractor warrants that it fully complies with all Federal and State statutes and regulations regarding the employment of aliens and others and that all its employees performing work under this Contract meet the citizenship or alien status requirement set forth in Federal statutes and regulations. The Contractor shall obtain, from all employees performing work hereunder, all verification and other documentation of employment eligibility status required by Federal or State statutes and regulations including, but not limited to, the Immigration Reform and Control Act of 1986, 8 U.S.C. §1324 et seq., as they currently exist and as they may be hereafter amended. The Contractor shall retain all such documentation for all covered employees for the period prescribed by the law. The Contractor shall indemnify, defend with counsel approved in writing by County, and hold harmless, the County, its agents, officers, and employees from employer sanctions and any other liability which may be assessed against the Contractor or the County or both in connection with any alleged violation of any Federal or State statutes or regulations pertaining to the eligibility for employment of any persons performing work under this Contract.
61. **Indemnification:** Contractor agrees to indemnify, defend with counsel approved in writing by County, and hold County, its elected and appointed officials, officers, employees, agents and those special districts and agencies which County's Board of Supervisors acts as the governing Board ("County Indemnitees") harmless from any claims, demands or liability of any kind or nature, including but not limited to personal injury or property damage, arising from or related to the services, products or other performance provided by Contractor pursuant to this Contract. If judgment is entered against Contractor and County by a court of competent jurisdiction because of the concurrent active negligence of County or County Indemnitees, Contractor and County agree that liability will be apportioned as determined by the court. Neither party shall request a jury apportionment.

IN WITNESS WHEREOF, the Parties hereto have executed this Contract on the dates shown below their respective signatures below.

**TRUESDAIL LABORATORIES, INC.\***  
a State of California Corporation

By \_\_\_\_\_

By \_\_\_\_\_

Print  
Name \_\_\_\_\_

Print  
Name \_\_\_\_\_

Title \_\_\_\_\_

Title \_\_\_\_\_

Corporate Officer

Corporate Officer

Date \_\_\_\_\_

Date \_\_\_\_\_

**COUNTY OF ORANGE**  
a political subdivision of the State of California

By \_\_\_\_\_

Print  
Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

**APPROVED AS TO FORM:**  
**County Counsel**

By \_\_\_\_\_  
Deputy

Date

\* If the contracting party is a corporation, (2) two signatures are required: one (1) signature by the Chairman of the Board, the President or any Vice President; and one (1) signature by the Secretary, any Assistant Secretary, the Chief Financial Officer or any Assistant Treasurer. The signature of one person alone is sufficient to bind a corporation, as long as he or she holds corporate offices in each of the two categories described above. For County purposes, proof of such dual office holding will be satisfied by having the individual sign the instrument twice, each time indicating his or her office that qualifies under the above described provision. In the alternative, a single corporate signature is acceptable when accompanied by a corporate resolution demonstrating the legal authority of the signator to bind the corporation.

**ATTACHMENT A  
SCOPE OF WORK  
WATER QUALITY ANALYTICAL SERVICES**

**I. BACKGROUND**

Orange County Public Works (County) manages multiple water quality monitoring programs for the Orange County Stormwater Program on behalf of the County of Orange, Orange County Flood Control District, and the 34 cities of Orange County in response to regulatory requirements for the National Pollutant Discharge Elimination System permits, adopted Total Maximum Daily Load directives, and various other environmental management initiatives. County collects aqueous and benthic sediment samples from freshwater, estuarine, and marine environments to evaluate concentrations of a variety of constituents in response to regulatory requirements including but not limited to;

- A. Federally NPDES stormwater compliance permits, *Code of Federal Regulations, Title 40, Part 122.*
- B. State requirements for Total Maximum Daily Load directives *Code of Federal Regulations, Title 40, Part 130.*
- C. Local mandates under the Model Water Quality Ordinance, *Orange County Board of Supervisors Ordinance 536 and subsequent revisions.*
- D. Waste Discharge Requirements for discharges to surface waters associated with construction project dewatering, *California Water Code 13260, NPDES Order R8-2007-0041, R8-2009-0030, R9-2008-0002.*
- E. Clean Water Act Section 401 Water Quality Standards Certification, *NPDES Order R8-2007-0041, R9-2009-0002, and SWRCB Order 2003-0017-DWQ.*
- F. Disposal of dredge and fill materials, *SWRCB Order 2003-0017-DWQ and Army Corp of Engineers Clean Water Act Section 404 permits.*

Analytical services for the water quality samples collected as part of the monitoring programs to fulfill these regulatory mandates are to be provided by State of California Environmental Laboratory Accreditation Program (ELAP) certified laboratories under contract to County.

County participates in a number of regional programs in collaboration with governmental, non-profit public institutions, universities, regulatory, and special districts where laboratory inter-calibrations have been applied to assess the analytical laboratory community as a whole. The regional program inter-calibration projects helps ensure data comparability, sensitivity, and precision between agencies and programs but also helps establish minimum performance standards for the various agencies in response to regulatory guidelines. Some of the recent inter-calibration programs that vendors to County have participated in include:

- A. The Stormwater Monitoring Coalition (SMC) Laboratory Inter-Calibration. The SMC is a coalition of the regulatory and regulated agencies in southern California working together to develop common approaches and management expectations for dealing with issues related to municipal stormwater management.
- B. The Southern California Bight Regional Marine Monitoring Program (Bight '98, '03, and '08). The BIGHT program is a coordinated periodic large scale environmental assessment of the southern California coastal environment focusing on current and emerging issues of concern in the watersheds, embayments, and ocean receiving waters. Environmental monitoring programs from governmental, non-profit public institutions, Federal and State regulatory agencies, universities, and the major special districts managing Publicly Owned

Treatment Wastewater (POTW) ocean outfalls are integrated in the Bight program to leverage existing resources for regional scale assessments.

## II. SCOPE OF SERVICES

Contractor shall provide Water Quality Analytical Services to County on an as needed basis.

- A. Contractor will be required to provide analytical services for one or more of the following categories of environmental samples
1. Nutrients in freshwater and seawater,
  2. Trace metals in freshwater,
  3. Trace metals in seawater,
  4. Pesticides in freshwater or seawater,
  5. Organic compounds and trace metals in sediment,
  6. Toxics in Biological Tissues (Fish Tissue and Bird Eggs)
  7. Miscellaneous analyses include, but are not limited to:
    - a. Oil and Grease, Partition Gravimetric (OGPG)
    - b. Total Recoverable Petroleum Hydrocarbons (TRPH)
    - c. Total Dissolved solids (TDS)
    - d. Total and Dissolved Organic Carbon (TOC and DOC)
    - e. Rainwater chemistry (RAIN)
    - f. General Minerals (GM)
    - g. Total Suspended Solids (TSS)
    - h. Methylene Blue Active Substances (MBAS)
    - i. Carbanecous Biochemical and Chemical Oxygen Demand (cBOD and COD)

Acceptable methods of analyses for constituents within each category are described in **Section IV**.

## III. GENERAL REQUIREMENTS

### A. CONTRACTOR SHALL:

1. Be a qualified laboratory, meeting requirements for certification by the California Dept. of Health Services Environmental Laboratory Accreditation Program (ELAP),
2. Participate in regional program intercalibration exercises for all relevant proposed laboratory testing services. Continued usage of analytical services from Contractor is contingent upon Contractor's participation in future SMC or BIGHT intercalibration exercises during the Contract term.
3. Be fully equipped and staffed, at a level capable of providing all analytical services.
4. Cover all fees related to labor, courier services, materials (coolers, sample containers (cubitainers), jars, etc.), special equipment and permits (where applicable) needed to provide analytical services.
5. Provide a 24-hour contact number or answering service.
6. Able to provide regularly scheduled and on-demand sample pick-up within the required holding times.



- a. Scheduled pick-up is defined as a minimum 6-hour advanced notice by County personnel.
  - b. On-demand pick-up, typically 3-4 samples, is defined as a 2-hour advanced notice by County personnel for analysis of a sample on the following day.
7. Upon County request; pick up and deliver samples in quantity adequate for analysis at:  
2245 N. Glassell St., Orange, CA 92865
  8. Provide weekend service and operate at extended hours when necessary for sample pick-up and preliminary analyses.
  9. Accept penalties, on a contractual basis, for not reporting finalized analytical results within specified turn around time.
  10. Upon request; provide personnel for field collection of samples.
  11. Be available for services on major holiday's (Thanksgiving week, Christmas Eve and Christmas Day, New Year's Eve and New Year's Day, Memorial Day, Fourth of July, and Labor Day). These rare occasions include storm events or a major water pollution investigation. Contractor is expected to perform essential analyses or sample preparation that will deem the samples suitable for analysis during normal business hours.
  12. Provide "RUSH" services on the reporting of analyses for some time-sensitive projects.
  13. Accept quality control provisions and penalties for failure to perform to stated levels of accuracy and precision as listed in Attachment B.
  14. Accept unannounced inspection of facilities and operations by County's personnel or an authorized QA/QC auditor(s) during term of contract.
  15. Provide lab reports electronically in Portable Document Format (.pdf), Electronic Data Report (EDR). Must accept penalties for data transcription errors of EDR files at a maximum allowable error rate of 0.1% of the total data values within the respective EDR.
  16. Must provide lab reports electronically in the Surface Water Ambient Monitoring Program (SWAMP) compatible format on an as-needed basis.)
  17. Conduct laboratory procedures for the analyses of aqueous and sediment chemistry samples from freshwater, estuarine, and marine environments. Contractor shall perform all analyses according to published methods presented in the following documents or their subsequent updates:
    - a. Standard Methods for the Examination of Water and Wastewater (APHA, AWWA, WPCF), latest edition,
    - b. EPA - 600/4-79-020 Methods for Chemical Analysis of Water and Wastes, March 1983, including subsequent amendments,
    - c. Federal Register, Guidelines Establishing Test Procedures for the Analysis of Pollutants, Part III, Vol. 44, No. 233, Monday, December 3, 1979, including subsequent amendments,
    - d. Federal Register, Guidelines for Establishing Test Procedures for the Analysis

- of Pollutants Under the Clean water Act; Final Rule and Interim Final Rule and Proposed Rule. Part VIII, Vol. 49, No. 209, Friday, October 26, 1986, including subsequent amendments,
- e. EPA-600/4-82-057 Methods for Chemical Analysis of Municipal and Industrial Wastewater, July, 1982 and subsequent revisions.
  - f. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, latest edition,
  - g. Revised method protocols as published under EPA Method Update Rules (MUR).
  - h. Other procedures established as EPA protocol, and published in the Federal Register.

Variation from procedures detailed in the above publications by the Contractor must be approved by County. In general, the procedures detailed in the above publications provide the County with the necessary sensitivity and precision required to meet water quality standards set by regulatory agencies for the NPDES stormwater permits, adopted Total Maximum Daily Load compliance programs, special management directives such as Waste Discharge Requirements while also being able to evaluate environmental data in terms of important toxicity thresholds such as the Lethal Concentrations to 50% of a testing population (LC50). In addition, the County has an extensive water quality trend monitoring program spanning decades that has implemented consistently improving methodologies in order to improve trends detection. Unannounced or unapproved methods by Contractor may result in reporting limit increases resulting in a baseline shift and hence affect the long term regulatory based trend monitoring program. Therefore, the following methods from the above noted publications are preferred for analyses performed by the Contractor. The County will accept alternate methods if the proposed substitution can achieve acceptable performance standards (method detection limits and precision) in complex environmental matrices including highly turbid stormwater runoff.

#### IV. CONTRACTOR MINIMUM REQUIREMENTS

##### A. Contractor must:

1. Be a qualified analytical laboratory, meeting requirements for certification by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP).
2. Have participated in BIGHT or SMC intercalibration exercises for all relevant categories consistent with Contractor's proposed services. Continued usage of analytical services from Contractor is contingent upon Contractor's participation in future SMC or BIGHT intercalibration exercises during the Contract term.
3. Cover all fees related to labor, courier services, materials (coolers, sample containers (cubitainers), jars, etc.), special equipment and permits (where applicable) needed to provide analytical services.
4. Provide weekend service and operate at extended hours when necessary for special projects, water pollution spill response events, and stormwater runoff sample pick-up including nights and holiday weekends, when necessary, for preliminary analyses.

5. Be available for services, when necessary, when provided an advanced notice by County personnel, on major holiday's (Thanksgiving week, Christmas Eve and Christmas Day, New Year's Eve and New Year's Day, Memorial Day, Fourth of July, and Labor Day). These rare occasions include storm events or a major water pollution investigation. Contractor is expected to perform essential analyses or sample preparation that will deem the samples suitable for analysis during normal business hours.
6. Accept, on a contractual basis, penalties for not reporting finalized analytical results on or before the 21st day after receipt of samples (48 hour or 7 days for rush samples) from County. Contractor must provide a draft report of analytical results within 1 business day for rush samples. All samples analyses specifically requested for 7 day rush service may be surcharged 30% over the quoted contract price. Must accept penalties for failure to perform within this time period. The County will grant time extensions beyond the reporting time limit to Contractor only a pre-approved case by case basis.
7. Accept the following analytical quality control provisions and penalties for failure to perform to stated levels of accuracy and precision as listed below:
  - a. Accept quality control provisions
  - b. Accept reporting limit provisions
  - c. Accept penalties for performance failure
  - d. Actual limits and penalties are described in Section F.

## B. Lab Reports

1. Provide lab reports electronically in Portable Document Format (.pdf) referenced by County chain of custody "entry set number". Acrobat Files with electronic signatures of the laboratory director will be acceptable. Must also provide results in the electronic data report (EDR) format shown in Attachment E. Submittal of pdf and EDR files shall be subject to reporting timeframes as described in Section IV.A.6., above. EDR files shall also be subject to a maximum allowable error rate of 0.1% of the total data values within the respective EDR. Must accept penalties for failure to meet this performance standard. All reporting costs shall be included in the costs of analyses as quoted. All electronic reporting functions as specified above must be operational on the effective date of the price agreement.
2. Must format invoices (hardcopy and electronic) to include County analysis/billing and project codes. An example of an acceptable hardcopy format is shown in Attachment D. An acceptable electronic format is shown in Attachment D.
3. Must provide lab reports electronically in the Surface Water Ambient Monitoring Program (SWAMP) compatible format referenced by County chain of custody "entry set number" on an as-needed basis. Submittal of SWAMP electronic files shall be subject to reporting timeframes as described in Section IV.A.6., above. SWAMP electronic files shall also be subject to a maximum allowable error rate of 0.1% of the total data values within the respective report. Must accept penalties for failure to meet this performance standard.

## C. REQUIRED METHODS OF ANALYSES

### 1. NUTRIENT GROUP:

Nutrient samples will be submitted for analyses in two containers: one acidified with analytical grade sulfuric acid for analysis of nitrate, ammonia, TKN, and total phosphate; and one un-altered for the remaining analyses. Seawater and fresh water will be treated similarly, with the exception of the ammonia and Kjeldahl nitrogen analyses. During the nesslerization of seawater, one milliliter of Rochelle Salts is added to minimize the interferences caused by the cations and anions in the seawater samples. Contractor will conduct analyses using the following methods or approved equivalent:

Analysis	Std Method	EPA Method
Conductivity	2510 B.	120.1
Turbidity	2130 B.	180.1
pH	4500-H B.	150.1
Nitrate+Nitrite Nitrogen	4500-NO3 F.	353.2
Ammonia Nitrogen	4500-NH3 B.	350.2
	4500-NH3 C.	350.2
	4500-NH3 E.	350.2
Total Kjeldahl Nitrogen	4500-Norg B.	351.3
Total Phosphate	4500-P B1.	365.2
	4500-P B2.	365.2
	4500-P B3,4.	365.2
	4500-P E.	365.1
Orthophosphate	4500-P E	365.1
Total Non-Filterable Residue	2540 D.	160.2
Volatile Solids	2540 E.	160.4)

## 2. TRACE ELEMENTS:

Aqueous samples will submitted for analyses in 500-mL or 1000-mL containers preserved with analytical grade nitric acid. Sediment samples will be submitted in I-Chem glass jars. Contractor will conduct analyses using the following methods:

Elements	Sample Preparation	EPA Method
Ag, As, Be, Cd, Cr, Cu, Hg*, Fe, Ni, Pb, Se, Sb, Tl, Zn,	Digestion in HNO3	
<b>Freshwater</b>		200.8; Hg EPA 245.1
<b>Seawater</b>		1640; Hg EPA 245.7
<b>Sediment</b>		6020; Hg EPA 245.7

## 3. PESTICIDES AND PCBs IN WATER AND SEDIMENT

Aqueous pesticide samples will be submitted for analyses in amber glass bottles. Sediment samples will be submitted in I-Chem glass jars. Contractor will conduct analyses using the following methods or approved equivalent:

Group	Matrix	EPA Method
Organophosphate Pesticides	Water/Sediment	625/8141
Organochlorine Pesticides&PCBs (Arochlors, Congeners)	Water/Sediment	625/8270
Pyrethroid Pesticides	Water/Sediment	625/8270
Carbamates	Water/Sediment	531.1/8270
Fipronil Insecticides	Water/Sediment	GC-MSD (SIM)

## 4. MISCELLANEOUS ANALYSES:

a. GENERAL MINERAL GROUP:

The General Mineral samples will be submitted for analyses in two containers: one will be acidified with analytical grade nitric acid for the ICP analysis and the other will be un-preserved for the remaining analyses. Contractor will conduct analyses using the following methods:

Analysis	Std Method	EPA Method
Conductivity	2510 B.	120.1
Turbidity	2130 B.	180.1
pH	4500-H B.	150.1
Calcium	3120B	200.7
Magnesium	3120B	200.7
Sodium	3120B	200.7
Potassium	3120B	200.7
Chloride	4110	300.0 or 300.1
Sulfate	4110	300.0
Nitrate Nitrogen	4110	300.0
Nitrite Nitrogen	4110	300.0
Carbonate, as CO <sub>3</sub>	2320 B.	310.1
Bicarbonate, as HCO <sub>3</sub>	2320 B.	310.1
Fluoride	4500-F C	300.1
Carbon Dioxide, calc.	4500-CO2 D.	CO <sub>2</sub> by Calculation
Hardness	2340 C.	130.2
Silica as SiO <sub>2</sub>	3120	200.7
Boron	3120	200.7
Total Filterable Residue		By Addition

b. RAINWATER GROUP:

Rainwater samples will be submitted for analyses in three separate containers: one acidified with nitric acid for major cations and trace metal elements; one acidified with sulfuric acid for nitrate, ammonia, TKN, and phosphate analyses; and one un-preserved for the remaining analyses. Contractor will conduct analyses using the following methods:

Analysis	Std Method	EPA Method
pH	4500-H B.	150.1
Conductivity	2510 B.	120.1
TFR @ 105°C	2540.	160.2
Nitrate Nitrogen	4500-NO3 F.	353.2
Ammonia Nitrogen	4500-NH3 B.	350.2
	4500-NH3 C.	350.2
	4500-NH3 E.	350.2
	4500-NH3 F.	350.3
Total Kjeldahl Nitrogen	4500-Norg B.	351.3
Total Phosphate	4500-P B1.	365.2
	4500-P B2.	365.2
	4500-P B3,4.	365.2
	4500-P E.	365.1
Sulfate	4110	300.0
Sodium	3120	200.7
Chloride	4110	300.0
Cadmium	3125	200.8
Copper	3125	200.8
Chromium	3125	200.8

Iron	3125	200.8
Nickel	3125	200.8
Lead	3125	200.8
Zinc	3125.	200.8

## c. OTHER ANALYSES

Contractor will conduct the following miscellaneous analyses using the cited methods:

Analysis	Std Method	EPA Method
Oil and Grease		1664A
Phenol	5530 B.	Clean-up Procedure
	5530 C.	Chloroform Extraction
Phenol		420.1
MBAS	5540 C.	425.1
Sulfide, Total	4500-S D.	376.2

D. **SAMPLE HOLDING TIME**

Listed below is the maximum sample holding time for the most commonly requested or critical analyses. The times listed are the maximum times that samples may be held before analysis and the data still considered valid. The times listed are in accordance with the analysis methods and sample preservation described in the preceding section. Samples may be held longer only if Contractor can show by historical data that samples with the specific matrix under consideration are stable longer than listed below.

<b>Nutrient Group</b>	
Conductivity	28 days
Turbidity	48 hours
pH	6 hours
NO <sub>2</sub> +NO <sub>3</sub>	28 days
NH <sub>3</sub>	28 days
TKN	28 days
Total PO <sub>4</sub>	28 days
Orthophosphate	48 hours
TSS	7 days
VSS	7 days
<b>General Mineral Group (except NO<sub>3</sub>)</b>	24 Days
NO <sub>3</sub>	48 hours
<b>Rainwater Group</b>	
Conductivity	28 days
pH	6 hours
NO <sub>2</sub> /NO <sub>3</sub>	28 days
NH <sub>3</sub>	28 days
TKN	28 days
Total PO <sub>4</sub>	28 days
TFR	7 days
Sulfate	28 days
Chloride	28 days
Sodium	6 months
Metals (Cd, Cr, Cu, Fe, Ni, Pb, Zn)	6 months
<b>Odor and Taste</b>	1 day
<b>MBAS</b>	48 Hours
<b>TOC</b>	28 Days
<b>PCB's</b>	7 Days (aqueous)
	14 Days (sediment)
<b>Pesticides and Herbicides</b>	7 Days (aqueous)
	14 Days (sediment)
<b>Extractable Organics</b>	7 Days (aqueous)
	14 Days (sediment)
<b>Volatile Organics</b>	14 Days
<b>Phenolics</b>	28 Days
<b>Oil and Grease</b>	28 Days

#### E. DETECTION LIMITS

Provided below is a list of maximum acceptable reporting limits and units for various constituents in aqueous and sediment matrices. Contractor may not deviate from maximum acceptable reporting limits without approval of County. Contractor must provide laboratory and electronic data report (EDR) results in the units specified in the following table. Contractor must provide reasonable explanation for alternate proposed reporting limits.

<b>Aqueous Samples</b>	<b>Reporting Limit AND Units</b>
Na, Mg, K, Ca	1.0 mg/L
SO <sub>4</sub> , Cl, HCO <sub>3</sub> , CO <sub>3</sub>	1.0 mg/L
SO <sub>4</sub> in Rainwater	0.5 mg/L
F	0.1 mg/L
B	0.1 mg/L
Nitrite + Nitrate as NO <sub>3</sub>	0.4 mg/L
NH <sub>3</sub> as N	0.1 mg/L
TKN	0.2 mg/L
Total Phosphorus as PO <sub>4</sub>	0.06 mg/L
Orthophosphate as P	0.02 mg/L
SiO <sub>2</sub>	0.5 mg/L
Total Non-filterable Residue	5.0 mg/L
Volatile Non-filterable Residue	5.0 mg/L
Total Filterable Residue	5.0 mg/L
Ag, Cd, Cr, Cu, Ni, Pb, Sb in freshwater	0.5 ug/L
As, Se, in freshwater	0.4 ug/L
Tl, in freshwater	0.2 ug/L
Hg in freshwater	0.01 ug/L
Zn in freshwater	2 ug/L
Fe, Mn in freshwater	5 ug/L
Ag, As, Be, Cd, Cr, Cu, Fe, Ni, Pb, Se, Sb, Tl, Zn, in seawater	0.05 ug/L
Hg in seawater	0.5 ng/L
Oil & Grease	5 mg/L
MBAS	0.1 mg/L
Organochlorine Pesticides (except Toxaphene)	2 ng/L
Toxaphene	20 ng/L
PCB Congeners	2 ng/L
PCB Arochlors	20 ng/L
Organophosphate Pesticides	5 ng/L
Carbaryl in freshwater	2 ug/L
Pyrethroid Pesticides in freshwater	2 ng/L
Fipronil Insecticides	5 ng/L
<b>Sediment Samples (dry/ wt)</b>	
Organochlorine Pesticides (except Toxaphene)	2 ug/kg
Toxaphene	20 ug/kg
PCB Congeners	2 ug/kg
PCBs (arochlors)	20 ug/kg
Pyrethroid Pesticides	5 ug/kg
Fipronil Insecticides	5 ug/kg
PAHs	2 ug/kg
Cadmium	0.05 mg/kg
Copper	0.05 mg/kg
Chromium (total)	0.05 mg/kg
Lead	0.05 mg/kg
Mercury	0.05 mg/kg
Nickel	0.05 mg/kg
Selenium	0.05 mg/kg
Silver	0.05 mg/kg
Zinc	0.05 mg/kg



**F. LIMITS OF ERROR, AND PENALTIES RELATED THERETO**

Limits of error for the common dissolved constituents in aqueous samples are defined in the following schedule, which shall apply to the determination of satisfactory accuracy or precision in analyses for these components:

<b>Constituent</b>	<b>Allowable Error</b>
Calcium	5% or 1.5 mg/l, whichever is greater
Magnesium	6% or 1.5 mg/l, whichever is greater
Sodium	5% or 2.0 mg/l, whichever is greater
Potassium	5% or 1.0 mg/l, whichever is greater
Chloride	5% or 1.0 mg/l, whichever is greater
Sulfate	5% or 1.0 mg/l, whichever is greater
Fluoride	10% or 0.1 mg/l, whichever is greater
Boron	5% or 0.2 mg/l, whichever is greater
Silica	10% or 2.0 mg/l, whichever is greater
Nitrate + Nitrite as NO <sub>3</sub>	10% or 1.0 mg/l whichever is greater
Total Phosphorus as PO <sub>4</sub>	20% or 0.20 mg/l whichever is greater
Ortho-Phosphate as P	20% or 0.20 mg/l whichever is greater
Ammonia Nitrogen	20% or 0.20 mg/l whichever is greater
Total Kjeldahl Nitrogen	20% or 0.20 mg/l whichever is greater
Ag, As, Be, Cd, Cr, Cu, Fe, Hg, Mn, Ni, Pb, Se, Sb, Tl, Zn	±25% for concentrations greater than or equal to 5X RDL (See Section 5)
MBAS	25% for concentrations greater than or equal to 0.5 mg/l
Organophosphorus Pesticides	Concentrations cannot be beyond certified QC performance limits as provided by the reference material vendor
SemiVolatile Organic Carbon and Polycyclic Aromatic Hydrocarbons	Concentrations cannot be beyond certified QC performance limits as provided by the reference material vendor
Oil & Grease	Concentrations cannot be beyond certified QC performance limits as provided by the reference material vendor
Ion Balance (Gen. Mineral)	0.5 milli-equivalents per liter or 5% whichever is greater

1. In the case of analytical parameters not listed above, determinations of satisfactory accuracy and/or precision may be made by County, on notification of Contractor, from information in the latest edition of "Standard Methods," or from other reputable publications. For samples prepared from Quality Control (QC) or Proficiency Testing (PT) standards, performance thresholds based on the allowable performance acceptance limits certified by the vendor will be used as the criteria for acceptability of results.

In the case of deviation from true values for known composition samples submitted by County for accuracy quality control, County may, at its option, either notify Contractor, if County believes the error is of a random nature or submit to Contractor another known sample. If the error in analyses exceeds the allowable error limits as described in the preceding table, County may require Contractor to re-analyze, for the constituent in question, or all samples within the same batch as the QA/QC check sample. These follow-up analyses must be conducted by Contractor at the sole expense of Contractor.

Refusal by Contractor to re-analyze for constituent(s) in question as requested by County, will result in an automatic 10% discount to the entire Contractor invoice for that sample batch.

On the second occurrence of Contractor failing to meet accuracy quality control, within 60 days (based on sample submittal date), of excessive error in analysis for the same constituent, Contractor's invoice(s), for all individual analyses for that constituent and group analyses containing those individual analyses conducted on samples submitted during the calendar month of the initial error, shall be discounted in accordance with the following table:

Limits of Ratios of Errors to Allowable Errors	% Discount
1.0 - 1.1	10
1.1 - 1.2	20
1.2 - 1.3	30
1.3 - 1.4	40
Over 1.4	50

In the case of reporting limits deviating from specified Maximum Acceptable Reporting Limits, County will notify Contractor of reporting error. County may require Contractor to re-analyze, for the constituent in question, or all samples within the same batch. Follow-up analyses must be conducted by Contractor or may be subcontracted to an ELAP certified laboratory capable of meeting the Maximum Acceptable Reporting Limits at the sole expense of Contractor. Refusal by Contractor to re-analyze for constituent(s) in question as requested by County, will result in an automatic 10% discount to the entire Contractor invoice for that sample batch. County understands the technical issues associated with the Maximum Acceptable Reporting Limits in specific categories of analyses, especially in difficult environmental matrices, and will work with Contractor to ensure positive progress is made in a timely manner to resolve reporting limits problems. **Contractor must notify County prior to performing analyses if Maximum Acceptable Reporting Limits cannot be achieved.** Any exceptions to Maximum Acceptable Reporting Limits need to be listed as Exceptions to Attachments and include all of the following: proposed EPA Method number, method detection limits, holding time, minimum sample volume needed for analysis, and preservation requirement

Submittal of pdf and EDR files shall be subject to reporting timeframes as described above. EDR files shall also be subject to a maximum allowable error rate of 0.1% of the total data values within the respective EDR.

#### **G. ADDITIONAL WORK:**

1. Upon County request, the Contractor shall submit supplemental proposals for Additional Work not called for under the Scope of Work of this Contract. Contractor must obtain County Project Manager written approval prior to commencing any Additional work.
2. The Contractor shall provide supplemental proposals in accordance with Attachment B, Additional Work section VV.
3. The County reserves the right to obtain supplemental proposals from, and use, alternate sources for completion of the Additional Work and to utilize the data provided under this Contract relative to necessary services.

4. If the County authorizes work by an alternate source, the Contractor may be relieved of responsibilities pertaining to the equipment affected by the project while work is being performed and during the subsequent warranty period.
5. Contractor shall continue to provide services to all areas not affected by work provided by alternate sources.
6. Upon completion of any Additional Work, whether by Contractor or an alternative source, the County's Project Manager or designee and Contractor will inspect the finished product at no additional cost to the County. Upon mutual acceptance of the Additional Work, the Contractor shall again be responsible for all services originally covered under this Contract and the work performed under this section.

**ATTACHMENT B  
CONTRACTOR PRICING**

- I. COMPENSATION:** This is an all-inclusive, firm fixed price Contract between the County and Contractor for Water Quality Analytical Services, as set forth in Attachment A, “Scope of Work”.

The Contractor agrees to accept the specified compensation as set forth in this Contract as full remuneration for performing all services and furnishing all staffing, labor, insurance, bonds, prevailing wage, vehicles, equipment, tools, materials, overhead, travel, etc. required, for any reasonably unforeseen difficulties which may arise or be encountered in the execution of the services until acceptance, for risks connected with the services, and for performance by the Contractor of all its duties and obligations hereunder. The Contractor shall only be compensated as set forth herein below for work performed in accordance with the Scope of Work. **The County shall not pay any sum in excess of the Fixed Prices specified below, unless work is authorized by County’s Project Manager in accordance with the Attachment A, Section G “Additional Work”, or unless authorized by amendment in accordance with Articles 29 and 45 of the Contract Terms and Conditions.**

- II. PRICING:** Payment shall be made in accordance with the provisions of this Contract. Partial payments may be allowed at the discretion of the County Project Manager. Payment shall be as follows:

**A. GROUP ANALYSES**

	Group Name	Analysis & Billing Code	Analyses Performed	Unit Price
1	Nutrient	NUT	pH, EC, Turbidity, NO <sub>2</sub> +NO <sub>3</sub> , NH <sub>3</sub> , TKN, PO <sub>4</sub> , Ortho P, TSS, VSS	\$ 70.00
2	Trace Metals – Freshwater (incl. digestion) (EPA 200.8)	TRF	Ag, Cd, Cr, Cu, Ni, Pb, Zn	\$ 49.00
3	Trace Metals – Freshwater (incl. digestion) (EPA 200.8)	TRF As Se Fe	Ag, As, Cd, Cr, Cu, Fe, Ni, Pb, Se, Zn	\$ 55.00
4	Trace Metals - Seawater (incl. digestion) (EPA 1640)	TRSW	Ag, Cd, Cr, Cu, Ni, Pb, Zn	
5	Trace Metals – Seawater complete (incl. digestion) (EPA 1640)	TRSWspc	Ag, As, Be, Cd, Cr, Cu, Hg, Fe, Ni, Pb, Se, Sb, Tl, Zn	
6	Trace Metals - Freshwater, Priority Pollutants (EPA 200.8)	TPP	Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Se, Sb, Tl, Zn	\$ 80.00
7	CAM 17 Inorganic (incl. digestion) (EPA 200.8)	CAM17	See Page 51 of 63	\$ 90.00
8	Complete CWA Trace Metals	MET	See Page 51 of 63	\$ 130.00
9	Rare Earth Elements (EPA 200.8)	REE	Ce, Dy, Er, Eu, Ho, Gd, La Lu, Nd, Pr, Sc, Sm, Tb, Y	
10	Indicator Bacteria By Membrane Filtration	BactiMF	Total Coliform, Fecal Coliform, Enterococcus	\$ 55.00

11	General Mineral	GM	pH, EC, Turbidity, Ca, Mg, Na, K, CO <sub>3</sub> , TDS, HCO <sub>3</sub> , Cl, SO <sub>4</sub> , F, NO <sub>3</sub> , SiO <sub>2</sub> , B, Hardness as CaCO <sub>3</sub> , CO <sub>2</sub> (by difference)	\$ 90.00
12	Rainwater	RAIN	pH, EC, NO <sub>2</sub> +NO <sub>3</sub> , NH <sub>3</sub> , TKN, SO <sub>4</sub> , PO <sub>4</sub> , TDS, Na, Cl, Cu, Cd, Cd, Cr, Fe, Ni, Pb, Zn	\$ 110.00
13	Organochlorine Pesticides (EPA 625)	OCP	See Page 51 of 63	\$ 120.00
14	Organophosphate Pesticides (EPA 625)	OPP	See Page 51 of 63	\$ 140.00
15	Carbamate Pesticides (EPA 531.1)	CP	See Page 51 of 63	
16	Pyrethroid Pesticides (EPA 625)	PP	See Page 51 of 63	
17	Chlorinated Herbicides (EPA 625)	HERB	See Page 51 of 63	\$ 110.00
18	Complete Pesticides (OCP, OPP, PP, and CP - EPA 531.1 & 625)	CPest	See Page 51 of 63	
19	Polychlorinated Biphenyls (PCBs) (EPA 625)	PCB	Aroclors, Congeners, See Federal Register	
20	Polynuclear Aromatic Hydrocarbons (EPA 625)	PAH	See Page 51 of 63	\$ 110.00
21	SemiVolatile Organic Compounds (EPA 625)	SVOC	See Page 51 of 63	\$ 110.00
22	Organics, Total Toxic - Water (OCP, PCB, SVOC – EPA 625)	TTO	See Page 51 of 63	
23	Organics, Total Toxic (Purgeable) (EPA 601, 602)	TPO	See Page 51 of 63	\$ 80.00
24	Total Threshold Limit Concentration (TTLC)	TTLC	California Administrative Code Title 22, Article 11(CAM)	\$ 95.00
25	Organics, Volatile (EPA 624)	VO	See Federal Register	\$ 60.00
26	TTLC - Sediment	TTLCS	California Administrative Code Title 22, Article 11(CAM)	\$ 95.00
27	Soluble Threshold Limit Concentration (STLC)	STLC	California Administrative Code Title 22, Article 11(CAM)	\$ 120.00
28	Total Nitrogen and Phosphorus in Sediment (EPA 300, 351.1, 365.2)	NPS		\$ 30.00
29	Total Nitrogen and Phosphorus in Plant Material (EPA 300, 351.1, 365.2)	NPP		\$ 50.00
30	Trace Metals - Sediment (incl. digestion) (EPA 6020)	TRS	Ag, As, Be, Cd, Cr, Cu, Hg, Fe, Ni, Pb, Se, Sb,	\$ 100.00

			Tl, Zn	
31	CAM 17 Inorganics – Sediment (incl. digestion) (EPA 6020)	CAM17-S	See Page 51 of 63	\$ 100.00
32	Organochlorine Pesticides Sediment (EPA 8270)	OCP-S	See Page 51 of 63	\$ 130.00
33	Organophosphate Pesticides Sediment (EPA 8141)	OPP-S	See Page 51 of 63	\$ 145.00
34	Pyrethroid Pesticides – Sediment (EPA 8270)	PP-S	See Page 51 of 63	
35	Carbamate Pesticides - Sediment (EPA 531.1)	CP-S	See Page 51 of 63	
36	PCB's - Sediment (EPA 8270)	PCB-S	Aroclors, Congeners See Federal Register	\$ 85.00
37	SemiVolatile Organic Compounds - in Sediment (EPA 8270)	SVOC-S	See Page 51 of 63	\$ 160.00
38	Pest., Herb., PCBs, Pyreth – Sed (EPA 8270, 8141, 8081, 8082, 8151)	PHPP-S	See Page 51 of 63	
39	Chlorinated Herbicides - Sediment (EPA 8151)	HERB-S	See Page 51 of 63	\$ 150.00
40	Polynuclear Aromatic Hydrocarbons - Sediment (EPA 8270)	PAH-S	See Page 51 of 63	\$ 125.00
41	Organics, Volatile – Sediment (EPA 8260)	VO-S	See Page 51 of 63	\$ 70.00
42	Phenolic Compounds (EPA 604, 625)	PHEN	See Page 51 of 63	\$ 95.00
43	Polychlorinated Dibenzo-P-Dioxins (EPA 8280)	PDD	See Federal Register	
44	Total Recoverable Petroleum Hydrocarbons (EPA 1664A)	TRPH	SGT-HEM	\$ 24.00
45	Total Recoverable Petroleum Hydrocarbons – Sediment (EPA 8440)	TRPH-S	IR Spectrophotometric Method	\$ 35.00
46	Total Petroleum Hydrocarbons Diesel and Oil Range (EPA 8015M)	TPH	Modified 8015	\$ 45.00
47	Total Petroleum Hydrocarbons – Sediment (EPA 8015M)	TPH-S	Modified 8015	\$ 45.00
48	Total Petroleum Hydrocarbons – Carbon Chain (EPA 8015Bm)	TPH-CC	Modified 8015B	\$ 80.00
49	Total Petroleum Hydrocarbons – Carbon Chain in Sediment (EPA 8015Bm)	TPHS-CC	Modified 8015B	\$ 80.00
50	BTEX (EPA 502.2, 524.1)	BTEX	Benzene, Ethyl-Benzene, Toluene, Total Xylene	\$ 45.00
51	BTEX– Sediment (EPA 8021)	BTEX-S	Benzene, Ethyl-Benzene, Toluene, Total Xylene	\$ 45.00
52	Radioactivity	RAD	Gross Alpha and Beta, Radium-226, Radon-222	\$ 210.00

53	Selenium in Tissue (EPA 200.8)	Se-T		\$ 25.00
54	Selenium Speciation	Se-spec	See Page 51 of 63	
55	Selenium Speciation, full analysis	Se-spec, full	See Page 51 of 63	
56	Organochlorine Pesticides and PCBs in Tissue (EPA 625/8270)	OCP-T	40 CFR, Part 423Section II.C	
57	Fipronil Insecticides	FIP	See Page 51 of 63	
58	Fipronil Insecticides in Sediment	FIP-S	See Page 51 of 63	

**B. INDIVIDUAL ANALYSES**

	Individual Determination	Analysis & Billing Code	Unit Price
1	Alkalinity	ALKA	\$ 7.00
2	Aluminum, ICP (EPA 200.7)	AL-ICP	\$ 6.00
3	Aluminum, ICP-MS (EPA 200.8)	Al	\$ 6.00
4	Aluminum- Seawater (EPA 1640)	Al-SW	
5	Aluminum- Sediment (EPA 6020)	Al-S	\$ 9.00
6	Antimony, ICP-MS (EPA 200.8)	Sb	\$ 6.00
7	Antimony- Seawater (EPA 1640)	Sb-SW	
8	Antimony - Sediment (EPA 6020)	Sb-S	\$ 9.00
9	Arsenic, ICP-MS (EPA 200.8)	As	\$ 6.00
10	Arsenic - Seawater (EPA 1640)	As-SW	
11	Arsenic - Sediment (EPA 6020)	As-S	\$ 9.00
12	Barium, ICP (EPA 200.7)	Ba-ICP	\$ 6.00
13	Barium, ICP-MS (EPA 200.8)	Ba	\$ 6.00
14	Barium - Seawater (EPA 1640)	Ba-SW	
15	Barium - Sediment (EPA 6020)	Ba-S	\$ 9.00

16	Beryllium, ICP-MS (EPA 200.8)	Be	\$ 6.00
17	Beryllium - Seawater (EPA 1640)	Be-SW	
18	Beryllium – Sediment (EPA 6020)	Be-S	\$ 9.00
19	Bismuth, ICP-MS (EPA 200.8)	Bi	\$ 6.00
20	Bismuth - Seawater (EPA 1640)	Bi-SW	
21	Bismuth – Sediment (EPA 6020)	Bi-S	\$ 9.00
22	B.O.D., Total (SM 5210B, EPA 405.1)	BOD	\$ 20.00
23	Boron, Circumin Method (EPA 212.3)	BCM	
24	Boron, ICP-MS (EPA 200.8)	B	\$ 6.00
25	Boron - Seawater (EPA 1640)	B-SW	
26	Boron – Sediment (EPA 6020)	BO-S	\$ 9.00
27	Bromide (EPA 320.1)	Br	
28	Cadmium, ICP-MS (EPA 200.8)	Cd	\$ 6.00
29	Cadmium - Seawater (EPA 1640)	Cd-SW	
30	Cadmium - Sediment (EPA 6020)	Cd-S	\$ 9.00
31	Calcium, EDTA (EPA 215.2)	Ca	
32	Calcium – ICP (EPA 200.7)	Ca-ICP	\$ 6.00
33	Carbonaceous BOD (EPA 405.1)	cBOD	\$ 20.00
34	Carbon dioxide, Titrimetric	CO2	\$ 10.00
35	Chloride, Mercuric Nitrate Method (EPA 325.3)	Cl	\$ 10.00
36	Chlorine residual, DPD (EPA 330.5)	CIR	\$ 8.00
37	Chlorine residual, Iodometric (EPA 330.3)	CIRI	\$ 8.00



38	Chlorophyll A	CHLA	\$	22.00
39	Chromium, Hexavalent (EPA 218.4)	Cr6	\$	43.00
40	Chromium, Total, ICP-MS (EPA 200.8)	Cr	\$	6.00
41	Chromium, Total - Seawater (EPA 1640)	Cr-SW		
42	Chromium, Total - Sediment (EPA 6020)	Cr-S	\$	9.00
43	C.O.D. (EPA 410.4)	COD	\$	24.00
44	Coliform, Total, Membrane Filtration (9222B)	TC	\$	25.00
45	Coliform, Fecal, Membrane Filtration (9222D)	FC	\$	25.00
46	Coliform, Total & Fecal, MF (9222B&D)	TFC	\$	42.00
47	Color, Spectrophotometric (EPA 110.3)	COLOR	\$	4.00
48	Conductivity (EPA 120.1)	EC	\$	8.00
49	Copper, ICP-MS (EPA 200.8)	Cu	\$	6.00
50	Copper, Total - Seawater (EPA 1640)	Cu-SW		
51	Copper - Sediment (EPA 6020)	Cu-S	\$	9.00
52	Cyanide, Total, Distillation & Photometry (EPA 335.2)	CND	\$	28.00
53	Cyanide, Amenable (EPA 335.1)	CNA	\$	25.00
54	Cyanide - Sediment (EPA 9010)	CN-S	\$	25.00
55	1,4- Dioxane (EPA 8270m)	DIOX	\$	90.00
56	Dicofol (EPA 617)	DICO		
57	Dicofol – Sediment (EPA 8081)	DICO-S		
58	Diquat (EPA 549.2)	DIQ		
59	Dissolved Oxygen, Winkler Titration (EPA 360.2)	DO	\$	11.00

60	Enterococcus, Membrane Filtration (SM9230C)	ENT	\$ 26.00
61	E. Coli, Membrane Filtration (SM9222G)	ECO	\$ 26.00
62	Fluoride (EPA 340.2)	F	\$ 12.00
63	Glyphosate (EPA 547)	GLYP	
64	Hardness, EDTA (EPA 130.2)	HARD	\$ 8.00
65	Iron, ICP-MS (EPA 200.8)	Fe	\$ 6.00
66	Iron - Sediment (EPA 6020)	Fe-S	\$ 9.00
67	Lead, ICP-MS (EPA 200.8)	Pb	\$ 6.00
68	Lead - Seawater (EPA 1640)	Pb-SW	
69	Lead - Sediment (EPA 6020)	Pb-S	\$ 9.00
70	Lithium, ICP-MS (EPA 200.8)	Li	\$ 6.00
71	Lithium - Sediment (EPA 6020)	Li-S	\$ 9.00
72	Magnesium, ICP (EPA 200.7)	Mg-ICP	\$ 6.00
73	Magnesium, ICP-MS (EPA 200.8)	Mg	\$ 6.00
74	Magnesium - Sediment (EPA 6020)	Mg-S	\$ 9.00
75	Manganese, ICP-MS (EPA 200.8)	Mn	\$ 6.00
76	Manganese - Sediment (EPA 6020)	Mn-S	\$ 9.00
77	MBAS, Colorimetric (EPA 425.1)	MBAS	\$ 23.00
78	Mercury, Cold Vapor (EPA 245.2)	Hg	\$ 14.00
79	Mercury - Sediment (EPA 7471A)	Hg-S	\$ 15.00
80	Moisture - Sediment (Oven Method)	MSTR	\$ 9.00

81	Molybdenum, ICP-MS (EPA 200.8)	Mo	\$	6.00
82	Molybdenum - Seawater (EPA 1640)	Mo-SW		
83	Molybdenum - Sediment (EPA 6020)	Mo-S	\$	9.00
84	MTBE - Sediment (EPA 8260B)	MTBE-S	\$	42.00
85	Nickel, ICP-MS (EPA 200.8)	Ni	\$	6.00
86	Nickel - Seawater (EPA 1640)	Ni-SW		
87	Nickel - Sediment (EPA 6020)	Ni-S	\$	9.00
88	Nitrate + Nitrite as NO <sub>3</sub> , (EPA 353.2)	NO <sub>3</sub> /NO <sub>2</sub>	\$	12.00
89	Nitrate + Nitrite as NO <sub>3</sub> , (EPA 300.0)	NO <sub>3</sub> /NO <sub>2</sub> - IC	\$	12.00
90	Nitrite, (Spectrophotometric) (EPA 354.1)	NO <sub>2</sub>	\$	12.00
91	Nitrogen, Ammonia Direct	NH <sub>3</sub> -D	\$	15.00
92	Nitrogen, Ammonia Distilled (EPA 350.2)	NH <sub>3</sub>	\$	24.00
93	Nitrogen, Total Kjeldahl (EPA 351.3)	TKN	\$	25.00
94	Nitrogen, Total (USGS-NWQL I-4650-03)	TN		
95	Nitrogen, Total in Sediment (EPA 300 and 351.3)	TN-S	\$	30.00
96	Odor (EPA 140.1)	ODOR	\$	5.00
97	Oil & Grease, Partition Gravimetric (EPA 1664)	OGPG	\$	22.00
98	Oil & Grease – Sediment (EPA 9071B)	OG-S	\$	35.00
99	Organic Carbon, Dissolved (SM 5310C)	DOC	\$	24.00
100	Organic Carbon, Total (EPA 415.1)	TOC	\$	24.00
101	Organic Carbon, Total - Sediment (EPA 9060)	TOC-S	\$	40.00
102	pH (EPA 150.1)	pH	\$	5.00

103	pH in Sediment (EPA 9045)	pH-S	\$	7.00
104	Perchlorate (EPA 314.0)	PERC		
105	Phosphate, Ortho (IC) (EPA 300.1)	PO4O	\$	14.00
106	Phosphorus, Total (EPA 365.2, 365.4)	P	\$	18.00
107	Phosphorus, Total - Sediment (EPA 365.2)	P-S	\$	28.00
108	Potassium (SM 3500-K D)	K		
109	Potassium, ICP (EPA 200.7)	K-ICP	\$	6.00
110	Residue, Total Filterable (TFR or TDS), dried at 180°C (EPA 160.1)	TDS	\$	14.00
111	Residue, Total Nonfilterable (TNFR or TSS), dried at 103-105°C (EPA 160.2)	TSS	\$	10.00
112	Residue, Total Volatile Solids (TVS), ignition at 550°C (EPA 160.4)	TVS	\$	14.00
113	Residue, Total Volatile Nonfilterable (VSS) ignition at 550°C (EPA 160.4)	VSS	\$	14.00
114	Residue, Settleable Solids (SS) (EPA 160.5)	SSR	\$	10.00
115	Selenium, ICP-MS (EPA 200.8)	Se	\$	6.00
116	Selenium - Seawater (EPA 1640)	Se-SW		
117	Selenium - Sediment (EPA 6020)	Se-S	\$	9.00
118	Silica, Dissolved (EPA 370.1)	SiO <sub>2</sub>	\$	10.00
119	Silver, ICP-MS (EPA 200.8)	Ag	\$	6.00
120	Silver - Seawater (EPA 1640)	Ag-SW		
121	Silver - Sediment (EPA 6020)	Ag-S	\$	9.00
122	Sodium, ICP (EPA 200.7)	Na-ICP	\$	6.00
123	Stable Isotopes, Dissolved Nitrate (Nitrogen-15, Oxygen-18), Denitrifier Method	15N18O		

124	Stable Isotopes, Dissolved Sulfate (Sulfur-34, Oxygen-18)	34S18O	
125	Stable Isotopes, Heavy Water (Hydrogen-2, Oxygen-18)	D18O	
126	Sulfate (EPA 300.0, 375.4)	SO <sub>4</sub>	\$ 11.00
127	Sulfide, Dissolved (EPA 376.2)	SD	\$ 11.00
128	Sulfide, Total (EPA 376.2)	ST	\$ 12.00
129	Sulfide, Total – Sediment	SUL-S	\$ 12.00
130	Sulfite (EPA 377.1)	SO <sub>3</sub>	\$ 12.00
131	Sulfur, Total	S	
132	Sulfur, Total - Sediment	ST-S	
133	Suspended Sediment Concentration (ASTM Method D 3977-97)	SSC	\$ 14.00
134	Thallium, ICP-MS (EPA 200.8)	Th	\$ 6.00
135	Thallium - Seawater (EPA 1640)	Th-SW	
136	Thallium - Sediment (EPA 6020)	Th-S	\$ 9.00
137	Tin, ICP-MS (EPA 200.8)	Sn	\$ 6.00
138	Tin - Seawater (EPA 1640)	Sn-SW	
139	Tin - Sediment (EPA 6020)	Sn-S	\$ 9.00
140	Tributyl Tin, (EPA 8323)	TBT	
141	Turbidity (EPA 180.1)	TURB	\$ 8.00
142	UV Absorbance @ 254 nm (SM 5910)	UV 254	\$ 22.00
143	Vanadium, ICP-MS (EPA 200.8)	V	\$ 6.00
144	Vanadium - Seawater (EPA 1640)	V-SW	
145	Vanadium - Sediment (EPA 6020)	V-S	\$ 9.00

146	Zinc, ICP-MS (EPA 200.8)	Zn	\$ 6.00
147	Zinc - Seawater (EPA 1640)	Zn-SW	
148	Zinc - Sediment (EPA 6020)	Zn-S	\$ 9.00

**C. DESCRIPTIONS OF GROUP ANALYSES****1. Compounds Included in Quantitative Analysis for:****a. CAM 17 Inorganics (CAM17) and CWA Complete Trace Metals (MET)****b. (CAM17 and CAM17-S)**

Antimony	Mercury
Arsenic	Molybdenum
Barium	Nickel
Beryllium	Selenium
Cadmium	Silver
Cobalt	Thallium
Chromium	Vanadium
Copper	Zinc
Lead	

**c. in (MET and MET-S) Add**

Aluminum	Manganese
Iron	Tin
Calcium (Water Only)	Titanium
Magnesium (Water Only)	Strontium
Potassium (Water Only)	

**d. Organophosphate Pesticides (OPP)**

Bolstar (Sulprofos)	Fenthion
Chlorpyrifos	Malathion
Demeton	Merphos
Diazinon	Mevinphos (Phosdrin)
Dichlorvos	Parathion-methyl
Dimethoate	Phorate
Disulfoton	Tetrachlorovinphos (Storophos)
Ethoprop (Ethoprophos)	Tokuthion
Fenclorophos (Ronnell)	Trichloronate
Fensulfothion	

**e. Carbamate Pesticides (CP and CP-S)**

Aldicarb (Temik)	3-Hydroxycarbofuran
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Aldicarb Sulfone	Methiocarb (Mesurol)
Carbaryl (Sevin)	Methomyl (Lannate)
Carbofuran (Furadan)	Promecarb
Dioxacarb	Propoxur (Baygon)

**f. Pyrethroid Pesticides (PP and PP-S)**

Allethrin	Deltamethrin
Bifenthrin	L-Cyhalothrin
Cyfluthrin	Permethrin
Cypermethrin	Prallethrin

**g. Chlorinated Herbicides (HERB and HERB-S)**

2,4- D	MCPA
2,4-DB	MCPD
Dicamba	Pentachlorophenol
Dichlorprop	Silvex
Dinoseb	2,4,5-T

**h. Organochlorine Pesticides (OCP, OCP-T and OCP-S) and****Poly Chlorinated Biphenyls (PCB and PCB-S)**

2,4'-DDD	Endosulfan I
2,4'-DDE	Endosulfan II
2,4'-DDT	Endrin
4,4'-DDD	Endrin Aldehyde
4,4'-DDE	Heptachlor
4,4'-DDT	Heptachlor Epoxide
Aldrin	Methoxychlor
alpha BHC	Mirex
beta BHC	Toxaphene
delta BHC	Trans-Nonachlor
Gamma BHC	PCB – Arochlors*
alpha Chlordane	PCB – Congeners*
Gamma Chlordane	
Dieldrin	
Endosulfan Sulfate	

(\* ) Compounds must be consistent with EPA Priority Pollutants (see Federal Register).

**i. Polynuclear Aromatic Hydrocarbons (PAH and PAH-S)**

Acenaphthene	Chrysene
Acenaphthylene	Dibenzo(a,h)anthracene
Anthracene	Fluoranthene
Benzo(a)anthracene	Fluorene
Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene
Benzo(b)fluoranthene	Naphthalene

Benzo(ghi)perylene	Phenanthrene
Benzo(k)fluoranthene	Pyrene

**j. Pesticides, Herbicides, PCBs, and Pyrethroids (PHPP and PHPP-S)**

2,4'-DDD	Endrin
2,4'-DDE	Heptachlor
2,4'-DDT	Heptachlor Epoxide
4,4'-DDD	Methoxychlor
4,4'-DDE	Mirex
4,4'-DDT	Parathion
Aldrin	Perthane
α BHC	Toxaphene
β BHC	Trans-Nonachlor
δ BHC	Simazine
γ BHC (LIndane)	2,4,5-TP Silvex
α Chlordane	2,4-D
γ Chlordane	PCB – Arochlors (7)*
Dieldrin	PCB – Congeners*
Endosulfan Sulfate	
Endosulfan I	
Endosulfan II	
Allethrin	Deltamethrin
Bifenthrin	L-Cyhalothrin
Cyfluthrin	Permethrin
Cypermethrin	Prallethrin

(\* ) Compounds must be consistent with EPA Priority Pollutants (see Federal Register).

**k. Analytes included in Quantitative Analyses for Selenium Speciation (Se-spec), \*(Se-spec, full)**

Selenate, Se <sup>6+</sup>	*Trimethylselenonium ion
Selenite, Se <sup>4+</sup>	*Selenocysteine
Seleno-L-methionine	*Se-methylselenocysteine
Methylseleninic acid	*Selenohomocysteine
Selenium cyanate	*Selenocystamine
	*Selenocystathionine
*Dimethylselenide	*γ-glutamyl-Se-methylselenocysteine

\*The full speciation (Se-spec, full) includes all 13 parameters.

**l. Phenolic Compounds (PHEN) – Method 604**

4-Chloro-3-methylphenol	2-Nitrophenol
2-Chlorophenol	4-Nitrophenol
2,4-Dichlorophenol	Pentachlorophenol
2,4-Dimethylphenol	Phenol
2,4-Dinitrophenol	2,4,6-Trichlorophenol
2-Methyl-4,6-	





Acrolein	1,2-dichloropropane
Acrylonitrile	Cis-1,3-dichloropropene
Benzene	Trans-1,3-dichloropropene
Bromodichloromethane	Diethyl ether
Bromoform	P-dioxane
Bromomethane	Ethylbenzene
Carbon tetrachloride	Methylene chloride
Chlorobenzene	Methyl ethyl ketone
Chloroethane	1,1,2,2-tetrachloroethane
2-chloroethylvinyl ether	Tetrachlorethene
Chloroform	Toluene
Chloromethane	1,1,1-trichloroethane
Dibromochloromethane	1,1,2-trichloroethane
1,1-dichloroethane	Trichloroethene
1,2-dichloroethane	Vinyl chloride
1,1-dichloroethene	

**o. Fipronil Insecticides (FIP and FIP-S)****Parent Compound**

Fipronil CAS# 120068-37-3

**Breakdown Products**

Fipronil Amide  
 Fipronil Sulfide  
 Fipronil Sulfone CAS# 120068-36-2  
 Desulfinyl Fipronil  
 Desulfinylfipronil amide

**III. LABOR RATES OF EXPERT PERSONNEL**

	<b>Job Title</b>	<b>Hourly Rate</b>
1.	Lab Director/ Manager	\$ 110.00
2.	Supervising Chemist	\$ 75.00
3.	Project Manager	\$ 70.00
3.	Technicians	\$ 45.00
4.	Clerical Staff	\$ 28.00

**IV. HOLIDAY SURCHARGE:** With County Project Managers approval, County shall pay a 10% surcharge to the normal unit cost if any portion of the Contractors laboratory analyses is conducted on a major holiday (Thanksgiving, Christmas, New Year's, Memorial Day, 4<sup>th</sup> July, Labor Day). Results of analyses from these special requests that are reported after the due date will not be eligible for the surcharge and will be subject to penalties (10% per week – this is the standard penalty rate for normal turn-around time lab reports ).

**V. RUSH SURCHARGE:** With County Project Managers approval, County shall pay a 50% surcharge to the normal unit cost rate for 48 hour analyses reported within that time period. Rush samples reported after the due date will not be eligible for the surcharge and will be subject to the penalties (10% per 48 hour period).

With County Project Managers approval, County shall pay a 30% surcharge to the normal unit cost rate for 7 day analyses reported within that time period. Rush samples reported after the due date will not be eligible for the surcharge and will be subject to the penalties (10% per 7 day period).

**VI. TOTAL CONTRACT AMOUNT SHALL NOT EXCEED:\$ 979,500.00**

**VII.ADDITIONAL WORK:** Any additional services not listed in the Contract must be approved by the County Project Manager in accordance with Attachment B, Section II.

**VIII.PRICE INCREASES/DECREASES:** No price increases will be permitted during the first period of the Contract. All price decreases will automatically be extended to the County. The County requires bona fide proof of cost increases on Contracts prior to any price adjustment. A minimum of ninety (90) days advance notice in writing is required to secure such adjustment. No retroactive price adjustments will be considered. The County may enforce, adjust, negotiate, or cancel escalating price Contracts or take any other action it deems appropriate, as it sees fit. The net dollar amount of profit will remain firm during the period of the Contract. Adjustments increasing the Contractor's profit will not be allowed.

**IX. FIRM DISCOUNT AND PRICING STRUCTURE:** Contractor guarantees that prices quoted are equal to or less than prices quoted to any other local, State or Federal government entity for services of equal or lesser scope. Contractor agrees that no price increases shall be passed along to the County during the term of this Contract not otherwise specified and provided for within this Contract.

**X. CONTRACTOR'S EXPENSE:** The Contractor will be responsible for all costs related to photo copying, telephone communications, fax communications, and parking while on County sites during the performance of work and services under this Contract.

**XI. PAYMENT TERMS:** Invoices are to be submitted in arrears, after services have been completed, to the address specified below along with an electronic copy emailed to the County Project Manager. Payment will be net 30 days after receipt of an invoice in a format acceptable to Orange County. Invoices shall be verified and approved by the County and subject to routine processing requirements. The responsibility for providing an acceptable invoice rests with the Contractor.

Billing shall cover services and/or goods not previously invoiced. The Contractor shall reimburse Orange County for any monies paid to the Contractor for goods or services not provided or when goods or services do not meet the Contract requirements.

Payments made by the County shall not preclude the right of the County from thereafter disputing any items or services involved or billed under this Contract and shall not be construed as acceptance of any part of the goods or services.

**XII.PAYMENT– INVOICING INSTRUCTIONS:** The Contractor will provide an invoice\* on the Contractor's letterhead. Each invoice will have a unique number and will include the following information:

1. Contractor's name and address
2. Contractor's remittance address, if different from 1, above
3. Name of County agency/department
4. Delivery/service address
5. Contract number
6. Service Date
7. Description of Tasks/Services (as specified above)
8. Hourly Rate, Classification/Title and Number of Hours for each Task/Service

- 9. Total
- 10. Taxpayer ID number

*\*SEE ATTACHMENT D, FOR FURTHER INVOICE INSTRUCTION.*

Invoices and support documentation are to be forwarded to:

OC Public Works  
Purchasing and Contract Services  
Attn: Accounts Payable  
300 N. Flower St., 8th Fl.  
Santa Ana, CA 92703

ATTACHMENT C  
STAFFING PLAN/SUBCONTRACTOR INFORMATION

**1. KEY PERSONNEL TO PERFORM CONTRACT DUTIES**

<b>Name</b>	<b>Classification/Designation</b>
Ms. Mona Nassimi	Executive Manager – Manager of Environmental Labs
Mr. Michael Ngo	Quality Assurance Manager and backup Project Manager
Mr. Jeff Lee	Project Manager
Mr. Mark Kotani	Group Leader, Organics Lab
Mr. Paymon Abri	Group Leader, Microbiology Lab
Ms. Hope Trinidad	Group Leader, Metals and Wet Chemistry Labs
Mr. Rossina Tomova	Group Leader, Radiochemistry Lab
Mr. Luda Shabunina	Group Leader, Log-in

Substitution or addition of Contractor’s key personnel in any given category or classification shall be allowed only with prior written approval of the County Project Manager.

The Contractor may reserve the right to involve other Contractor personnel, as their services are required. The specific individuals will be assigned based on the need and timing of the service/classification required. Assignment of additional key personnel shall be subject to County written approval. County reserves the right to have any of Contractor personnel removed from providing services to County under this Contract. County is not required to provide any reason for the request for removal of any Contractor personnel.

**2. SUBCONTRACTOR(S)**

In accordance with Article 36, “Assignment or Sub-Contracting”, listed below are Sub-Contractor(s) anticipated by Contractor to perform services specified in Attachment A.

<b>Subcontractor Company Name /Location Address</b>	<b>Contact Name and Telephone Number</b>	<b>Division of Work or Trade</b>

**ATTACHMENT D**  
**FORMAT FOR ANALYTICAL SERVICES INVOICING**  
 (CONTRACTOR LETTERHEAD)

Bill to:	OC Public Works	Contract No.	
	OCPW/Purchasing	Invoice No.*	
	300 N. Flower Street	Lab Request No. +	
	Santa Ana, CA 92703	Project No(s). from CoC	
		Invoice Date:	
		Invoice Due Date:	
		Tax Payer I.D. No.	

Example of itemized billing:

CONTRACTOR LAB NUMBER	OC Public Works SAMPLE NUMBER	BILLING AND ANALYSIS CODE	UNIT COST	SAMPLE QUANTITY	TOTAL COST
2000-2005	WR1050-1055	DOC^	20.00x	6	\$120.00
2006-2008	WR1056-1058	NUT@	50.00	3	\$150.00
				Invoice Total	<u>\$270.00</u>

- a.) If amended invoice code "R" after Contractor Invoice No.
- b.) If amended lab request code "R" after lab request number.
- c.) These abbreviations to be taken from the approved price list for analyses from the IFB.
- d.) If unit price is different from that established in the Price Agreement code x after unit price with explanation (e.g. rush surcharge or late report penalty)
- e.) If requested analysis is coded as a group, the invoice must provide a total price for that group of analyses and not individual costs for each of the analyses performed.

**ATTACHMENT E  
FORMAT FOR ELECTRONIC DATA REPORT (EDR) OF ANALYTICAL RESULTS**

(Submitted as a text file by electronic mail)

	Comments
C,TRACE METALS-Aqueous	{Line 1} – a comment line, here showing the Type of Analyses (comments preceded by C,)
FORMAT=WQS	{Line 2} – first no-comment line must be FORMAT=WQS
LA,LABNAME	{Line 3} – Lab identifier (always preceded by LA,)
LN,115131,8/15/03	{Line 4} – Laboratory Request Number for linking data to invoices, date of report, always preceded by LN,)
PN,1027,1034,1042,1051,1067,1077,1092	{Line 5} –Parameter Numbers (STORET Codes) (always preceded by PN)
DC,WR65001,452001,5.1,4.0K,6.0K,8.2,40K,1.0K,58	{Lines 6-8} – Data Cards= the results of the analyses
DC,WR65005,452002,4.8,4.0K,6.2,9.1,40K,1.0K,25	Format= DC,OCPW sample ID#, lab sample ID#, data value with qualifier, if applicable, for each parameter number
DC,WR65009,452003,2.8,5.0,,9.8,40K,1.0K,300	
DC,WR65010,452004,nr,nr,nr,nr,nr,nr,nr	{Line 9} – Missing sample or cancelled analysis. Code nr as result for each parameter number
LN,115132,8/18/03	{Line 10} – Laboratory Request Number for linking data to invoices, date of report, always preceded by LN,)
PN,31501,31615,31649	{Line 11} – Parameter Numbers (STORET Codes) (always preceded by PN)
DC,WR65052,48502,2500,1600,800	{Lines 12-13} – Data Cards
DC,WR65053,10K,10K,10K	Format= DC,OCPW sample ID#, lab sample ID#, data value with qualifier, if applicable, for each parameter number

*Note:*

- Each set of data for a specific Laboratory Request Number must be preceded with the LN number
- Filename must begin with lab identifier, e.g. Labname051108Data.txt, and be unique (including invoice files)
- Files are submitted in text format (.txt)
- All entries are comma-delimited.
- If a value is not available for any parameter in a given sample, use two successive commas, with no space between, to signify such (See line 8 -no value for 1042 (copper))
- Data Qualifiers
- K – less than
- L – greater than
- J – estimated
- One file can include as many series of LN, PN,DC combinations as desired.
- If this is an amended data report, code an “R” after the Laboratory Request Number (e.g. 115131R)
- Comment lines can be included on any line. Comment lines, preceded with C, are ignored by the input program
- The first non-comment line must be a line with “FORMAT=WQS”.

**ATTACHMENT F**  
**FORMAT FOR ELECTRONIC ANALYTICAL SERVICES INVOICING**

(Submitted as a text file by electronic mail)

	Comments
FORMAT=INVOICE	{Line 1} FORMAT=INVOICE line required. Must be first non-comment line.
PA,N2000003381	{Line 2} Purchase Agreement number (always preceded with PA,)
LN,115131,8/21/03	{Line 3} Laboratory Request Number (linked to EDR), date of invoice (always preceded by LN,)
DC,TFR,3,60,180	{Line 4} Analysis billing code, number of analyses, unit price per analysis (or group analysis), subtotal (always preceded by LN,)
DC,NUT,4,145,580	{Line 5} Analysis billing code, number of analyses, unit price per analysis (or group analysis), subtotal (always preceded by LN,)
T,760	{Line 6} Total of invoice associated with above Laboratory Request Number (always preceded with T,)
LN,115132,8/24/03	{Line 7} Laboratory Request Number (linked to EDR), date of invoice (always preceded by LN,)
DC,BACTIMF,2,65,130	{Line 8} Analysis billing code, number of analyses, unit price per analysis (or group analysis), subtotal (always preceded by LN,)
T,130	{Line 9} Total of invoice associated with above Laboratory Request Number (always preceded with T,)

Note:

- Filename must include lab identifier, e.g. LABNAME0511104INV.txt, and must be unique (including data files)
- Files submitted are in text format (.txt)
- Use only valid codes for analysis type
- If amended invoice code "R" after Laboratory Request Number (e.g. 115131R)
- Comment lines are allowed on any line (preceded with C,)
- If unit price is different from that established in the Price Agreement code X after unit price (e.g. TRF,3,70X,210)
- If requested analysis is coded as a group, the invoice must provide a total price for that group of analyses and not individual costs for each of the analyses performed.
- One file can include as many series of LN, DC,T combinations as desired.