

WEST VALLEY WATER DISTRICT 855 W. Base Line Road, Rialto, CA 92376 PH: (909) 875-1804 FAX: (909) 875-1849

ENGINEERING, OPERATIONS AND PLANNING COMMITTEE MEETING AGENDA

WEDNESDAY, OCTOBER 14, 2020 - 6:00 PM

NOTICE IS HEREBY GIVEN that West Valley Water District has called a meeting of the Engineering, Operations and Planning Committee to meet in the Administrative Conference Room, 855 W. Base Line Road, Rialto, CA 92376.

Teleconference Notice: In an effort to prevent the spread of COVID-19 (Coronavirus), and in accordance with the Governor's Executive Order N-29-20 and the order of the County of San Bernardino dated March 17, 2020, there will be no public location for attending this Committee Meeting in person. Members of the public may listen and provide public comment via telephone by calling the following number and access code: Dial (888)475-4499, Access Code: 840-293-7790 or you may join the meeting using Zoom by clicking this link: <u>https://us02web.zoom.us/j/8402937790</u>. Public comment may also be submitted via email to administration@wvwd.org. If you require additional assistance, please contact the Executive Assistant at administration@wvwd.org.

BOARD OF DIRECTORS

Director Greg Young (Chair) Director Kyle Crowther

1. CONVENE MEETING

2. PUBLIC PARTICIPATION

The public may address the Board on matters within its jurisdiction. Speakers are requested to keep their comments to no more than three (3) minutes. However, the Board of Directors is prohibited by State Law to take action on items not included on the printed agenda.

3. DISCUSSION ITEMS

- 1. Updates to Engineering, Operations and Planning Committee
- 2. Approve Sale of Water in Storage in the Chino Groundwater Basin to Cucamonga Valley Water District.

- **3.** Professional Service Agreement with Clinical Laboratory of San Bernardino, Inc. for Analytical Laboratory Services.
- 4. Consider A Professional Services Agreement And Task Order No. 1 With Michael Baker International For The Professional Engineering Services For Development of Construction Bid Documents For Water Main Replacement, Construction Management, and Inspection Services For The Interstate 10 Cedar Avenue Interchange Improvement Project.
- 5. Consider a Non-Interference Letter for Parcel Map 19945.
- 6. Consider Release of Overlying Easement within Lot 126 of Tract 20018.
- 7. Property Appraisal for Future Zone 6 Reservoir Site.
- **8.** Consider Task Order 2 with Water Systems Consulting, Inc. to Update the Preliminary Cost Estimate and Peer Review for Developer Funded Water Improvements.

4. ADJOURN

DECLARATION OF POSTING:

I declare under penalty of perjury, that I am employed by the West Valley Water District and posted the foregoing Engineering, Operations and Planning Committee Agenda at the District Offices on October 8, 2020.

Maisha Mesa, Executive Assistant



BOARD OF DIRECTORS ENGINEERING, OPERATIONS AND PLANNING COMMITTEE STAFF REPORT

DATE:	October 14, 2020
TO:	Engineering, Operations and Planning Committee
FROM:	Clarence C. Mansell Jr., General Manager
SUBJECT:	APPROVE SALE OF WATER IN STORAGE IN THE CHINO
	GROUNDWATER BASIN TO CUCAMONGA VALLEY WATER
	DISTRICT

BACKGROUND:

Stakeholders in the Chino Basin are allowed to buy, sell, or store unused water rights overseen by the Chino Basin Watermaster. The West Valley Water District (District) presently has over 8,000 acre-feet (AF) of groundwater in storage in the Chino Basin and has rights to accumulate approximately 900 AF annually. However, the District is unable to extract its current water rights due to well contamination issues in the Chino Basin, therefore the sale of the District's stored water has been considered appropriate.

DISCUSSION:

On May 1, 2002, the District and Cucamonga Valley Water District (CVWD) entered into an agreement that allows CVWD to purchase up to 500 acre-feet of stored Chino Basin groundwater each fiscal year. District staff negotiated with CVWD to sale 500 AF of the District's rights for this fiscal year and 500 AF from last fiscal year at \$528.50 per AF totaling to \$528,500.00. The rate is consistent with other water transactions by CVWD in the Chino Basin. CVWD Board already approved the purchase on September 22, 2020. This transaction is pending District Board approval prior to moving the item to the Chino Basin Watermaster Board.

FISCAL IMPACT:

This item is included in the FY2020/2021 Revenues section of the approved budget.

STAFF RECOMMENDATION:

Staff recommends that the Engineering, Operations and Planning Committee approve the sale of 1,000 acre-feet of stored water in the Chino Groundwater Basin to Cucamonga Valley Water District at a rate of \$528.50 per AF and to have this item considered by the full Board of Directors at a future meeting.

CM:jc

MEETING HISTORY:

10/14/20 Engineering, Operations and Planning Committee



BOARD OF DIRECTORS ENGINEERING, OPERATIONS AND PLANNING COMMITTEE STAFF REPORT

DATE:	October 14, 2020
TO:	Engineering, Operations and Planning Committee
FROM:	Clarence C. Mansell Jr., General Manager
SUBJECT:	PROFESSIONAL SERVICE AGREEMENT WITH CLINICAL
	LABORATORY OF SAN BERNARDINO, INC. FOR ANALYTICAL
	LABORATORY SERVICES

BACKGROUND:

The West Valley Water District (District) requires an analytical laboratory services firm to provide analytical laboratory services, including the analysis of samples of water, wastewater and other media for physical properties, chemical properties, environmental contaminants, and other properties as needed. The current 5-year agreement with Clinical Laboratory of San Bernardino, Inc. for analytical laboratory services expires in January 2021. District staff has identified a need to execute a new agreement that starts in January 2021.

The analytical services that are requested are both for mandated, permit-driven analyses of samples as well as for less predictable project-based sample analyses required on an as-needed basis. The permit-driven analyses requested by the District are dictated by the State Water Resources Control Board's Division of Drinking Water permit requirements, City of Rialto Industrial Wastewater Discharge permit requirements, and National Pollution Discharge Elimination System permit requirements.

DISCUSSION:

On September 2, 2020, a Request for proposals (RFP) was issued and publicly advertised on PlanetBids. Three (3) firms – Clinical Laboratory of San Bernardino, Inc. (CLS), ESB Babcock Laboratories, Inc. (ESB), and Eurofins Eaton Analytical, LLC. (EEA) – submitted proposals to provide analytical laboratory services. Attached as **Exhibit A** is the RFP for Analytical Services Related to Public Water Supply.

The written proposals were reviewed by a committee comprised of District Staff and were evaluated and scored in categories. Each proposal was scored under the following criteria categories:

- Qualifications and experience of the project manager and other key individuals.
- Capability to perform required drinking water analyses, meet detection limits, immediate notification of exceedances, laboratory certifications, and deliver reports and electronic data deliverables.

- Quality of proposal response package.
- Rationale of each firm's fee schedule.

The firms' written proposal were similar in qualifications and technical expertise. Several proposal highlights are summarized as follows:

Analytical Laboratory	Clinical Laboratory of	ESB Babcock	Eurofins Eaton
Services	San Bernardino, Inc.	Laboratories, Inc.	Analytical, LLC.
Estimated lab services cost per year based on FBR, FXB and Arsenic plants not operating	\$105,650	\$146,733	\$159,524
Estimated lab services cost if FBR, FXB, and Arsenic Plants are online	\$209,282	\$273,109	\$295,671
Distance to District Headquarters	9.5 miles	23 miles	37 miles
Years in business	52 years	115 years	51 years
Turnaround Time	8 days; Subcontractors – 15 days	10 days; Subcontractors – 20 days	10-15 Days

Based on technical qualifications, overall evaluation, and results, District staff recommends that CLS provides the best value for the District needs for analytical lab services. Attached as **Exhibit B** is the RFP submitted by CLS. Attached as **Exhibit C** is the Technical Proposal Score Sheet and additional cost comparisons.

FISCAL IMPACT:

This item is included in the Fiscal Year 2020/21 Operating Budget titled "Professional Services/Lab Tests" with a budget of \$178,500.

STAFF RECOMMENDATION:

Staff recommends that the Engineering, Operations and Planning Committee approve a one (1) year Professional Service Agreement with two (2) one-year extensions options to Clinical Laboratory of San Bernardino, Inc. for analytical laboratory services and to have this item considered by the full Board of Directors at a future meeting.

CM:jc

ATTACHMENT(S):

- 1. Exhibit A RFP for Analytical Services Related to Public Water Supply
- 2. Exhibit B CLS Proposal
- 3. Exhibit C Technical Proposal Score Sheet

4. Exhibit D - Professional Service Agreement

MEETING HISTORY:

10/14/20 Engineering, Operations and Planning Committee

EXHIBIT A



REQUEST FOR PROPOSALS (RFP) FURNISH ANALYTICAL SERVICES RELATED TO PUBLIC WATER SUPPLY

INVITATION

The West Valley Water District ("District") is seeking the services of a qualified, experienced laboratory to provide analyses to comply with Department of Drinking Water (DDW) sampling requirements. The selection process will be based mainly on the laboratories' qualifications, price, and availability.

A PDF copy of the entire proposal must be submitted online through Planet Bids. No proposals shall be submitted after <u>4:00 p.m. on Thursday September 17, 2020</u>. Late qualification documents will not be accepted.

During the RFP process, consultants shall direct all questions, inquiries, requests, submissions solely through Planet Bids. Responses to questions received four (4) days prior to the RFP deadline will not be available. If there is any revision to the RFP, an addendum will be issued on Planet Bids (PB) and made available to all firms receiving RFP documents.

A Sample Professional Services Agreement is also attached as part of this RFP. Please review and if there is a disagreement with sections of this agreement, it may be addressed as part of the Laboratory's proposal submission. Otherwise, it is understood that the Laboratory accepts all parts of the agreement.

BACKGROUND

West Valley Water District ("District") is a County Water District, a public agency of the State of California, organized and existing under the County Water District Law (Division 12, Section 30000 of the Water Code) of the State of California. The District serves water to over 22,000 connections within the Cities of Rialto, Fontana, Colton, Jurupa Valley (Riverside County) and to unincorporated areas of San Bernardino County. The District's service area includes a large amount of undeveloped land which is described in various specific plans.

The District's distribution system includes eight pressure zones which are divided into a northern and southern system with the City of Rialto serving the area in between. The system includes 25 reservoirs, 12 booster pump stations, 23 wells, six treatment facilities and over 360 miles of pipeline.

Water supplies include groundwater from District wells in 4 groundwater basins, from imported State Project Water and Lytle Creek surface flows are treated at the Oliver P. Roemer Water Filtration Facility, from water purchased through the Base Line Feeder pipeline and from groundwater treated at our new Groundwater Wellhead Treatment System.

PROJECT DESCRIPTION

This proposal is to provide analytical services for one year, guaranteeing prices for analytical services with two renewable one year extensions at the option of the District. Execution of a contract by the District shall not entitle the other party to any form of payment or compensation from the District without first having issued a request for services from the laboratory.

SCHEDULE OF EVENTS

9/2/20	Issuance of Request for Proposals
9/11/20	Deadline for Written Questions
9/17/20	Proposals Due by 4:00 PM
10/22/20	District Approval of Contract (est. date)
12/28/20	Issuance of Notice-to-Proceed (est. date)
1/1/2021	Contract Begins

SCOPE OF WORK

The District is seeking a qualified laboratory to perform the analysis, quality control, reporting, and electronic data deliverables (both to DDW and WaterTrax) for the duration of this contract, with a quick turn-around time while providing excellent customer service.

PROPOSAL REQUIREMENTS

Although the District requires no specific format, this section is intended to provide guidelines to the firm regarding features that the District will look for and expect to be

included in the Proposal.

1. Content & Format

The District requests that Proposals submitted be organized and presented in a neat and logical format and are relevant to these services. The contractors' proposals shall be clear, accurate and comprehensive. Excessive or irrelevant material will not be favorably received.

Proposals should include the following:

- Transmittal/offer letter signed by an individual authorized to act on behalf of the Firm.
- Index/Table of Contents.
- Project Approach & Scope of Work
- Statement of Qualifications, Experience, and Reference.
- Costs (please see Attachment "C")

2. Team Organization

The purpose of this section is to describe the organization of the project team including any subcontractors and key staff. A project manager shall be named who shall be the prime contact and be responsible for coordinating all activities with the District. An organization diagram shall be submitted showing all key team members and illustrating the relationship between the District, the project manager, key staff, and subcontractors. There also should be a brief description of the role and responsibilities of all key staff and subcontractors identified in the team organization. Brief resumes should highlight education, relevant experience, licenses, and specific responsibilities for services described.

3. Statement of Qualifications

The information provided in this section should describe the qualifications of the firm to demonstrate competence to perform these services. Information shall include:

- Methods in which the laboratory is approved by the EPA to Support DDW Requirements.
- Subcontract Laboratories, if any, and their qualifications pertaining to DDW Requirements.
- Feasibility of adhering to the Districts Sampling Schedule.
- Availability of reporting and electronic data deliverables (DDW and WaterTrax).
- Standard Turn-Around Time.
- Distance, in miles, of Laboratory to the District (855 West Baseline, Rialto, CA 92377), and availability of sample containers, sample kits and sample receiving hours, including weekends and holidays.

• The Firm shall maintain an office staffed with qualified technical and field personnel.

4. Fee Proposal

All Firms shall provide complete the Fee proposal and identify any extra fees for the completion of this contract. Attachment "C".

The Firms will be ranked and the District shall select the one or two top ranked Firms, at the sole discretion of the District, and enter into contracts for the services described above.

Reimbursable expenses shall not be allowed unless negotiated prior to a contract.

Price escalations during the contract term are disfavored and will not be allowed unless negotiated prior to execution of contract.

The Firm shall prepare progress billings, reflective of the project schedule and the scope of work completed, by line item and description.

GENERAL REQUIREMENTS

1. Bids

Bids must be submitted on blank forms prepared and furnished with this Request for Proposals, for that purpose. Contractors may obtain copies of the specifications through the District's Planet Bids (PB) electronic bidding system. Only proposals submitted in electronic format through the District's PB site will be accepted.

2. Prevailing Wages

Contractors on this Work will be required to comply with the President's Executive Order No. 11246 (Equal Employment Opportunity Clause) as amended, California Government Code Section 12900 et. seq., California Labor Code Section 177.6 and implementing regulations concerning equal opportunity for Apprentices.

The Director of the Department of Industrial Relations has ascertained the general prevailing rate of per diem wages and the general rate for holiday and over-time work in the locality in which the work is to be performed for each craft or type of workmen needed to execute the Contract of Work as hereinafter set forth (see Labor Code 1770 et. seq., effective January 1, 1977). Copies of the rates are available online at http://www.dir.ca.gov/oprl. The successful Contractor shall provide a copy of such determinations to each crew working on this maintenance contract. Attention is called to the fact that not less than the minimum salaries and wages shall be paid on these Projects by all Contractors and Subcontractors.

Pursuant to Section 1740 of the California Labor Code, contractors are notified that the said wage rates shall be subject to modification to comply with revisions in Federal Minimum Wage schedules without necessity of republication.

3. Department of Industrial Relations Compliance (if applicable)

West Valley Water District requires all contractors/vendors to be registered with the State of California Department of Industrial Relations (DIR). This provision applies to all public works contracts in excess of \$15,000 or more. *Public Works* is defined as "construction, alteration, demolition and installation, or repair work (including maintenance) performed under a contract utilizing public funds." All bidders or contractors must provide proof of registration with the DIR in their proposals or the bid will be rejected.

4. Workers Compensation Clause

The Contractor and its Subcontractor(s) shall comply with the provisions of Section 3700 of the California Labor Code which requires every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code.

5. Payment

Payments will be made to the Contractor in accordance with the provisions of the specifications and on itemized estimates duly certified by the Contractor and approved by the District. Payment shall not be made more often than once each thirty (30) days.

6. Award and Execution

The award of contract, if made, will be made within thirty (30) calendar days from the date of the proposal opening.

The Contractor shall execute the Agreement within fifteen (15) days from the date of the Notice of Award.

If at any time the Contractor fails to perform the scheduled work, the District shall be notified in writing of the reason why the work was not performed and an alternate date scheduled with District staff. If the Contractor fails to perform the scheduled maintenance for more than thirty days, they will be notified in writing of the District's intent to terminate the contract.

The District hereby reserves the right to reject any and all proposals or to waive any irregularity. No bidder may withdraw his proposal and the proposal is to remain firm for a period of ninety (90) days after proposal opening.

7. Contractual Documents

Contractual Documents, including specifications, may be downloaded through the District's Planet Bids (PB) System.

EVALUATION PROCESS AND SELECTION CRITERIA

The District's evaluation and selection process is based upon Qualifications Based Selection (QBS) for professional services. The following criteria will be used in evaluating the proposals using a point value system based upon the weighting indicated below:

- 1. Qualifications and experience of the project manager and other key individuals.
- 2. Capability to perform required drinking water analyses, meet detection limits, immediate notification of exceedances, laboratory certifications (CaELAP or NELAC), and deliver reports and electronic data deliverables (DDW & WaterTrax).
- 3. Quality of Proposal Response Package.
- 4. Results of reference checks.
- 5. Rationale of each firm's fee schedule.

ATTACHMENT(S)

• Fee Schedule

Analytical Fee Schedule

Current

West Valley Water District

TAT Unit Matrix Parameters Method Price (days) Water Corrosivity w/field pH Panel varies Water Corrosivity w/Field pH, GM Panel varies Water Corrosivity w/o Field pH Panel varies Water Corrosivity w/o Field pH Panel w/GM varies Water General Mineral varies Water General Physical varies Inorganic Chemical Panel Water varies Water Total Hardness Calculated varies Water **UV Analysis Panel** varies DO - Dissolved Oxygen-Field* Water Field Water Field Chlorine Residual - Free* Field Water Field Electrical Conductivity* Field Water Field pH* Field Water Field Temperature (°C)* Field Water Field Temperature (°F)* Field Water Field Turbidity* Field Water 10 Tube Multiple Tube Fermentation SM 9221 Water 15 Tube MPN (Total/Fecal Coliform) SM 9221 Water 9223 Coliform Quantitray SM 9223 Water 9223 LT2 Quantitray SM 9223 Water Heterotrophic Plate Count SM9215B Water Presence/Absence SM 9223 Total Coliform/Ecoli (Enumeration) Water SM 9223 Water Cryptosporidium by LT2 EPA 1622 Water Color SM 2120BM Water Odor EPA 140.1-M Water True Color (filtered) SM 2120BM Water Turbidity EPA 180.1 Water UV254 - Abs SM 5910B

Bid Date:

Packet Pg. 15

Water	Ammonia Digestion by Lachat	EPA 350.1		
Water	Bicarbonate	SM 2320 B		
Water	Biochemical Oxygen Demand	SM 5210B		
Water	Bromate	EPA 300.1		
Water	Bromide	EPA 300.1		
Water	Biochemical Oxygen Demand-Carbonaceous	SM 5210B		
Water	Carbonate	SM 2320B		
Water	Chemical Oxygen Demand	HACH 8000		
Water	Chlorate	EPA 300.1		
Water	Chloride	EPA 300.0		
Water	Chlorite	EPA 300.1		
Water	Cyanide	SM 4500CN-F		
Water	Dissolved Organic Carbon	SM 5310BM		
Water	Dissolved Oxygen	SM 4500-OG		
Water	Electrical Conductivity	SM 2510B		
Water	Fluoride	EPA 300.0		
Water	Hydroxide	SM 2320B		
Water	Kjeldahl Nitrogen	EPA 351.2		
Water	MBAS	SM 5540C		
Water	Nitrate	EPA 300.0		
Water	Nitrate	EPA 353.2		
Water	Nitrate	EPA 300.0		
Water	Nitrate	EPA 353.2		
Water	Nitrate/Nitrite	EPA 300.0		
Water	Nitrite as N	EPA 300.0		
Water	Nitrite as N	EPA 353.2		
Water	Nitrogen, Inorganic	Calc		
Water	Nitrogen, Total	Calc		
Water	Oil & Grease	EPA 1664A		
Water	Ortho-Phosphate-P (PO4-P) E365.2/H8048	EPA 365.1		
Water	Perchlorate	EPA 314.0		
Water	Perchlorate	EPA 314.0	4-hr	
Water	Perchlorate	EPA 314.0	24-hr	
Water	рН	SM 4500HB		
Water	Phosphorus - Ortho	HACH 8048		
Water	Phosphorus - Total	HACH 8190		
Water	Phosphorus - Total as P	HACH 8190		
Water	Settleable Solids	SM 2540F		

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Water	Sulfate	EPA 300.0
Water	Sulfide	SM 4500S2D
Water	Sulfide, Dissolved	SM 4500S2D
Water	Suspended Solids	SM 2540D
Water	Total Alkalinity	SM 2320 B
Water	Total Dissolved Solids	SM 2540C
Water	Total Organic Carbon	SM 5310B
Water	Total Petroleum Hydrocarbons	EPA 1664A
Water	Total Solid	SM 2540B
Water	Aluminum	EPA 200.7
Water	Antimony	EPA 200.8
Water	Arsenic	EPA 200.8
Water	Barium	EPA 200.7
Water	Beryllium	EPA 200.8
Water	Boron	EPA 200.7
Water	Cadmium	EPA 200.7
Water	Calcium	EPA 200.7
Water	Chromium	EPA 200.7
Water	Chromium Hexavalent	EPA 218.6
Water	Chromium Trivalent	Calc
Water	Cobalt	EPA 200.7
Water	Copper	EPA 200.8
Water	Iron	EPA 200.7
Water	Iron & Manganese	EPA 200.7
Water	Lead (School Program)	EPA 200.8
Water	Lead (School Program)	SM 3113B
Water	Lead	EPA 200.8
Water	Lead & Copper	EPA 200.8
Water	Magnesium	EPA 200.7
Water	Manganese	EPA 200.7
Water	Mercury	EPA 245.1
Water	Molybdenum	EPA 200.7
Water	Nickel	EPA 200.7
Water	Potassium	EPA 200.7
Water	Selenium	EPA 200.8
Water	Silica	EPA 200.7
Water	Silver	EPA 200.8
Water	Sodium	EPA 200.7

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Water	Thallium	EPA 200.8
Water	Vanadium	EPA 200.8
Water	Zinc	EPA 200.7
Water	Gross Alpha	EPA 900.0
Water	Gross Alpha/ Beta	EPA 900.0
Water	Gross Beta	EPA 900.0
Water	Radon	Radon
Water	Uranium (Radiological)	EPA 200.8
Water	Uranium	EPA 908.0
Water	МТВЕ	EPA 524.2
Water	MTBE & Benzene	EPA 524.2
Water	MTBE, Benzene, PCE	EPA 524.2
Water	MTBE, Benzene, PCE, TCE	EPA 524.2
Water	PCE/TCE	EPA 524.2
Water	Purgeable Organics	EPA 524.2
Water	TCE+Trihalomethanes	EPA 524.2
Water	Tetrachloroethlyene	EPA 524.2
Water	Trichloroethylene	EPA 524.2
Water	DBCP	EPA 504.1
Water	EDB/ DBCP	EPA 504.1
Water	1,2,3-TCP	SRL 524M-TCP
Water	Carbamates	EPA 531.1
Water	Chlorinated Acid Herbicides	EPA 515.4
Water	Diquat	EPA 549.2
Water	Endothall	EPA 548.1
Water	Glyposate	EPA 547
Water	Pesticides / PCB	EPA 508.1
Water	Semi-Volatile Organic Compounds	EPA 525.2
Water	Triazine Pesticides	EPA 507
Water	Trihalomethanes	EPA 524.2
Water	THM Max Potiential	EPA 510.1
Water	Haloacetic Acid 5	EPA 552.2
Water	Haloacetic Acid Max Pot	EPA 552.2
Water	1,4-Dioxane	EPA 8270
Water	Acute Toxicity - % Survival	EPA-821-R-02-012
Water	Asbestos	EPA 100.2
Water	Dioxin	EPA 1613B
Water	Dioxin in Wastewater	EPA 1613B

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Water	Geosmin and MIB	SM 6040D		
Water	NDMA	EPA 521		
Water	Nitrosamines	EPA 521		
Water	Organochlorine Pesticide	EPA 608		
Water	Organochlorine Pesticides	EPA 8081		
Water	Phenolic Compounds	EPA 420.4		
Water	Polychlorinated Biphenyls	EPA 8082		
Water	Purgeable Organics	EPA 624		
Water	Radium 226	EPA 903.0		
Water	Radium 228	EPA 900.0		
Water	Semi-Volatile Organics	EPA 625		
Water	Semi-Volatile Organics	EPA 8270		
Water	Speciation	Focus 52235		
Water	Strontium 90	EPA 905.0		
Water	TPH-Gas/Diesel Range	EPA 8015		
Water	Tritium	EPA 906.0		
Water	Volatile Organics	EPA 8260B	_	
Water	Volatile Organics-TCE ONLY	EPA 8260B		

TOTAL

\$0.00

*All results from the field that are included on the Chain of Custody, such as temperature and pH, need to be included on the final report.

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EXHIBIT B



September 17, 2020

Joanne Chan West Valley Water District 855 West Base Line Road Rialto, CA 92377

Dear Joanne Chan,

Clinical Laboratory of San Bernardino, Inc., a California State Certified Small Business, has been providing analytical services to Southern, Central, and Coastal regions of California including the high and low desert regions of California for over 50 years. Clinical Laboratory of San Bernardino, Inc., and our two satellite labs, provides a wide range of analytical services to City, State and Federal water agencies, industrial clients, water district clients, engineering firms, and private individuals. Our Project Management Team provides our valued clients with personalized, efficient, and courteous services that set us apart from other laboratories. As the only full service water and wastewater laboratory located in San Bernardino County, we continue to provide our clients with accurate water quality analyses, quick turn-around times, and excellent customer service.

Should Clinical Laboratory of San Bernardino, Inc. be awarded this contract, your Project Manager will continue to be our Client Services Manager, Stu Styles. I know Stu and your staff have formed a strong relationship while deciphering the analytical requirements for the perchlorate bioremediation project, and others, over the last several years. His knowledge of your analytical needs will be a continued, valuable asset. We will continue to provide West Valley Water District with pdf, electronic, EDT, and WaterTrax reports, through email and web access, along with week end bacteria analysis availability. And as the closest full service lab, we will continue to be the most convenient.

I hope we will be able to continue our working relationship.

Thank you.

Sincerely,

Bot Slaufy

Bob Glaubig Laboratory Director Clinical Laboratory of San Bernardino, Inc.

Clinical Laboratory of San Bernardino, Inc Celebrating 50 Years of Analytical Service 1967-2017



Analytical Services Related To Public Water Supply West Valley Water District

Request For Proposal Submittal

Due: September 17, 2020 4:00 p.m.

Submitted By:

Clinical Laboratory of San Bernardino, Inc.



Furnish Analytical Services Related to Public Water Supply Request for Proposal Response / West Valley Water District

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Proposal Compliance Summary

We have read the proposal requirements, and do state that Clinical Laboratory of San Bernardino, Inc. will comply with all requirements outlined in West Valley Water District – Furnish Analytical Services to Public Water Supply RFP. Specific compliance requirements outlined in this RFP are stated below:

- Proof of Clinical Laboratory, and all sub-contract labs, ELAP certification is found within this RFP response.
- Clinical Laboratory is working toward, and will be compliant with, TNI requirements as defined by State of California ELAP, by January 01, 2024.
- Clinical Laboratory has submitted contract conditions and prices which will remain valid through the 1 year contract period and optional two 1 year extensions.
- The Point of Contact for all service, contract, and billing issues will be Stu Styles. Stu is the current Project Manager for West Valley Water District and is very knowledgeable of West Valley's sampling and testing requirements. In his absence, Bob Glaubig, our Laboratory Director, will step in to resolve any issues.
- Clinical Laboratory currently has liability and professional insurance covering West Valley Water District and will maintain this insurance for the duration of the contract.
- Clinical Laboratory is fully capable of uploading electronic data deliverables to both the State of California EDT data base, and the WaterTrax operational data base.
- Clinical Laboratory has succeeded in providing analytical service to West Valley Water District for the past five years. We are confident we can continue to provide the same high quality of service while adhering to the District's sampling schedule.
- Clinical Laboratory complies with State required prevailing wages, when applicable. All employees are paid over-time and holiday wages as outlined by the California Labor Board.
- Clinical Laboratory is fully insured with workers compensation coverage as outlined by the California Labor Board.
- Clinical Laboratory currently, and will continue to, invoice West Valley Water District on a once per month schedule.
- Clinical Laboratory is located only 9.5 miles from the West Valley Water District business headquarters; making us your closest full service environmental lab choice.
- Standard turn around times for analyses covered in this RFP are stated, per analysis, in the Fee Schedule portion of this RFP Submittal; page 16. In general, analyses performed at Clinical Lab have a turn around time of 8 working days, while analyses performed at sub-contract labs have a turn around time of 15 working days. Most in-house analyses can be analyzed on a rush basis. And Clinical Laboratory will continue to offer West Valley Water 4 hour and 24 hour perchlorate rush analyses.



Firm Information

Clinical Laboratory of San Bernardino, Inc. is a California Corporation located at 21881 Barton Road, Grand Terrace, CA 92313. You can reach Clinical Laboratory of San Bernardino, Inc. by calling (909) 825-7693, faxing (909) 825-7696 or emailing glaubig@clinical-lab.com.

Hours and Days of Operation

Clinical Laboratory of San Bernardino, Inc. is open seven days each week, including holidays. Availability outside the stated hours is possible with advance notice.

Monday thru Friday	8:00 am to 5:00 pm
Saturday, Sunday	8:30 am to 11:30 am
Holidays	8:30 am to 11:30 am

Experience and Qualifications

Clinical Laboratory of San Bernardino, Inc., has been providing quality analytical testing to cities and water districts throughout Southern California since 1968. The laboratory began as a medical lab and soon expanded into the area of water testing. The medical end of the business was dropped many years ago and the laboratory continued with a specialty of drinking and wastewater analyses. Annexes located in Lompoc, California and Hesperia, California extend our service area into the Central Coast and High Desert areas.

Clients of Clinical Laboratory include customers ranging in size from large cities and water districts to small mobile home parks. The laboratory works closely with State and regulatory personnel to keep abreast of current regulation changes to help our clients remain in compliance.

The California Department of Health Services has certified the Grand Terrace, Lompoc and Hesperia locations for complete bacteriological testing of potable water and wastewater. In addition, the Grand Terrace laboratory is certified for organic, inorganic, and radiological constituents. Our Microbiology Department performs over 1500 coliform bacteria analyses per week and is one of the largest in the state. Our certification allows us to do bacteriological analyses by 10 or 15 tube Multiple Tube Fermentation, Colilert presence/absence, Quantitray, and Heterotrophic Plate Count.

The State requires all drinking water analysis results to be EDT uploaded to their database on the 10th of each month following completion of the analysis. Clinical Laboratory was a partner with the State during the implementation of the Write-On/EDT program in the early 1990's, and has historically been one of the highest volume providers of data to the State database.



Clinical Laboratory of San Bernardino, Inc. - Laboratory Services Approach

Experience/Stability/Capability

Clinical Laboratory marked its 50th anniversary in 2017. Our qualifications are demonstrated by our extensive satisfied client list. In fact, Clinical Laboratory is the current service provider for West Valley Water District, and has been for over 20 years.

Laboratory Project Manager

The Laboratory Project Manager for this contract, for all issues, will be Stu Styles. Mr. Styles is the current Project Manager for the existing contract with West Valley Water District. His skills in both laboratory management and client project management will continue to be a great asset to the West Valley Water District. In his absence, Bob Glaubig, our Laboratory Director, will handle any questions/issues which may arise. Mr. Styles has more than 20 years of client project manager experience; 12 years with Clinical Laboratory.

Contract Deliverables

Clinical Laboratory understands the State and EPA report format requirements. In addition, we comply with the Write-On EDD uploads to the State database of all required drinking water analysis results. For our customer convenience, report results can be provided as hard copy, email, and/or upload to our secure Client Connect website for viewing/downloading as needed. All reports are routinely reported within 8 working days, with rush turn arounds possible on most analyses.

Services Summary

Clinical Laboratory will continue to provide the same excellent service we have provided to the West Valley Water District for the past two decades. Our understanding of your needs is a major part of our success. We feel we have demonstrated that understanding through our level of service. Our Project Manager, Stu Styles, has an excellent working relationship with your current staff. This relationship ensures the communication required for a successful water quality program.

Client Communication

The communication between the West Valley Water District staff and your project manager Stu Styles has been, and will continue to be, a key to our success in supporting the laboratory testing program. Mr. Styles will continue to be accessible to the West Valley Water District staff during both normal business and non-business hours. Mr. Styles routinely communicates with your staff on-line, on the phone, or on site during sample deliveries to resolve issues and discuss upcoming sampling events.

Subcontract Laboratory Utilized

Those few analyses which Clinical Laboratory of San Bernardino, Inc. does not provide inhouse, will be subcontracted to the following labs. The specific analyses sent to each sub-contract lab are listed as part of the Analytical Fee Schedule. The ELAP certificates for each sub-lab can be found in Appendix A. The sub-contract lab utilized are:

Aquatic Bioassay Lab, Ventura, CA	Cel Analytical, San Francisco, CA
CLS Lab, Rancho Cordova, CA	Davi Lab, Hercules, CA
Eurofin Analytical, Monrovia, CA	EMSL/LA Testing, Pasadena, CA
Pace Analytical, Minneapolis, MN	Weck Laboratory, City of Industry, CA

Google Maps

855 West Base Line Road, Rialto, CA to 21881 Barton Road, Grand Terrace, CA Drive 9.5 miles, 19 min







Professional Personnel

Clinical Laboratory of San Bernardino, Inc. hires and retains professional staff, each of which hold educational degrees ranging from Bachelor of Science to Master of Science; all of our staff are an integral part of serving our clients. A brief description of each position we feel are the key(s) to successful completion of projects follows.

Laboratory Director

The laboratory director oversees the total operations of the laboratory, and assures all aspects of the laboratory analysis, from sample receipt/log-in to final reporting, are both accurate and complete. He is also in-charge of all the technical and analytical aspects in the laboratory. Efficient and effective planning capabilities are two important qualities in order to fulfill the primary objectives of the laboratory.

Quality Control Manager/Safety Manager

Reviews and oversees the quality control and quality assurance aspects of analytical methodologies being performed in the laboratory. Communicates with the laboratory Director on QA/QC needs and various factors for improving the efficiency in the laboratory. Quality Control is also in charge of the safety operations.

Client Services Manager/Project Manager

Our client service manager and his team act as a liaison between the client and the laboratory. They are responsible for all aspects of serving the client. From project initiation, bottle orders, technical questions and final reporting/electronic data deliverables. Our client services team makes sure projects flow through the laboratory processes smoothly and assists clients with their questions and monitoring needs.

Chemists/Analysts/Laboratory Technicians

Must perform laboratory analyses using approved standard operating procedures. Generate results that are dependable, accurate, and supported by acceptable quality control data. Monitors the daily quality control acceptance criteria, such as precision and accuracy of data. Maintains maintenance logs of instruments, standard preparation log, satisfactory operating conditions and routine calibration checks. Performs data validation of all results generated; checks and reviews results and quality control before passing them to department supervisors for final review.

Clinical Laboratory of San Bernardino, Inc. Grand Terrace Organizational Chart





Key Staff Members

The Clinical Laboratory of San Bernardino, Inc. Organization Chart, as seen on page 3, highlights y departments which are critical in success of the City of Santa Ana contract.

Bob Glaubig - Laboratory Director

In addition to supervising routine laboratory operations as Laboratory Director, Bob will also be the back up Project Manager for the West Valley Water District contract. Should Stu, the Project Manager, be out or unavailable, all client inquiries, supply orders, special sample container sets, and report generation will go through Bob.

Stu Styles - Client Services Manager

Stu will be the Project Manager, and primary Lab Contact, for all issues involving the West Valley Water District contract. All client inquiries, supply orders, special sample container sets, and report generation will go through Stu.

Colin Dwyer - Microbiology Department Manager

Colin, and his staff we be performing the requested microbiological and general physical analyses for the West Valley Water District contract. The microbiology staff are responsible for in lab receipt of samples, log in of microbiology and general physical samples into our in-house laboratory network, entering completed results into the network, and reviewing these results for accuracy.

Roberto Cabrera - Quality Assurance / Quality Control Manager

Roberto is in charge of the overall quality control/quality assurance program which dictates the accuracy and client confidence of all analyses performed at Clinical Laboratory of San Bernardino, Inc.. Roberto is also supervises staff in our volatile organics department and semi-volatile department.

Tish Bernstein - Project Manager

Tish will be the backup, backup contact for supply orders, special sample container preparation, and report generation should both Stu and Bob be out for the day.

Art Hernandez – RadioChemistry Department Manager

Art is in charge of our radiochemistry department. Analyses such as gross alpha are supervised with in his department.

Khurshid Ahmed - Inorganic Chemical Department Manager

Khurshid is in charge of our inorganics department. Analyses such as metals, anions, and wet chemistry are supervised with in his department.

Dean Palmer - Semi-Volatile Compound Department Manager

Dean is in charge of our semi-volatile department. Analyses such as haloacetic acids (HAAs), TOC, DOC, and specific semi-volatile analyses are supervised with in his department.

Bachelor of Science, Soil Science – Cal Poly University, Pomona, CA (1981). Master of Science, Chemistry – University of California, Riverside, CA (1984).

Experience Summary

Forty years experience conducting both research and applied analyses of water, air, and soil at University, Federal, and commercial levels. Research disciplines have included soil chemistry, air pollution, and applied environmental management.

Equipment and techniques utilized include Dionex Ion Chromatography, Perkin Elmer Atomic Spectrophotometry, Technicon automated colorimetry, Hewlett Packard gas chromatography, and High Pressure Liquid Chromotography.

Laboratory management skills have included initial set-up for the USDA Forest Fire Laboratory in Riverside, CA which required set-up of instrumentation, design of an in-house QA/QC program, and writing the Laboratory Methods Training Manual. Computer duties have included development and implementation of a computerized chemical inventory system, and development of computer programs which interactively collect and process data from analytical instruments.

Mr. Glaubig has been employed at Clinical Lab since 1995 during which time he has been involved in all aspects of the laboratory operation, from Sample Receiving to the processing of final reports. Bob is also expert in Title 22 regulatory requirements and EDT transfers, having worked closely with the State for many years.

Master of Science, Plant Physiology – University of California, Davis Master of Science, Agricultural Science – Cal Poly, San Luis Obispo

Experience Summary

Chemist – Chemical Waste Management, Modesto CA Performed Gas Chromatography analyses of total petroleum hydrocarbons and volatile organic compounds in water and soil.

Inorganic Chemist – Associated Labs, Orange CA Performed analysis, quality control, and data review for ion chromatography methods for water and soil.

Organic Chemist – Clinical Lab, Grand Terrace, CA.

Semivolatile chemist performing Gas Chromatography analyses of pesticides. Analytical Methods include EPA 507, EPA 508, EPA 515, EPA 525, EPA 531, EPA 547 and EPA 549. Responsible for new method development and certification. Quality Assurance / Quality Control Manager.

Bachelor of Science, Chemistry Master of Science, Analytical Chemistry

Experience Summary

Analytical Chemist/Supervisor – Applied Engineering & Remediation Laboratories, CA Conducting analyses of water, waste water and hazardous waste for minerals, trace metals and various other

inorganic components based on EPA and SW 846 methods. Also responsible for treatment of waste water and hazardous waste, setup, operation, maintenance and troubleshooting of various instruments.

Analytical Chemist/Inorganic Supervisor – American Environmental Testing Lab, CA Conducting analyses on water, drinking water, soil and other hazardous waste for minerals, metals, trace metals, Chromium VI, Perchlorate and other inorganic components using EPA and SW 846 methods.

Analytical Chemist/Inorganic Supervisor - Clinical Lab, Grand Terrace CA

Supervises all aspects of the Inorganic Division which includes analysis of metals, anions, classical wet chemistry, and wastewater panels. Assures results accuracy through the use of quality assurance samples and analysts training. Responsible for instrument operation techniques and maintenance. Works closely with Quality Assurance Manager on SOP revisions and calibration issues.

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Bachelor of Science, Chemistry - California Polytechnic University, Pomona, CA

Experience Summary

GC/MS Supervisor – Associated Labs, Orange CA

Responsible for organizing and directing the affairs of the GC/MS department. Supervising and training of chemists as well as performing volatile, semi-volatile, and air analyses using current and new GC/MS instrumentation. Reviewing data and QC reports along with updating of laboratories SOPs. Also responsible for all minor and major routine maintenance of the instrumentation.

GC/MS Chemist – Del Mar Analytical, Irvine CA

Responsible for performing volatile, semi-volatile, and air analyses using current and new GC/MS instrumentation. Reviewing data and QC reports along with updating of laboratories SOPs. Also responsible for all minor and major routine maintenance of the instrumentation.

GC/MS Chemist - Clinical Lab, Grand Terrace. CA

Responsible for performing volatile, semi-volatile, and air analyses using current and new GC/MS instrumentation. Analytical Methods include EPA 525, EPA 552, and TOC (SM5310). Reviewing data and QC reports along with updating of laboratories SOPs. Also responsible for all minor and major routine maintenance of the instrumentation.

Bachelor of Arts, Environmental Science - University of California, Riverside

Experience Summary

Laboratory Assistant - Centrum Analytical Laboratories, Riverside, CA

Trained in the following tests: Total Suspended Solids, Total Dissolved Solids, Water Inorganic Digestion, Soil Inorganic Digestion, Water Cold Vapor Extraction, Soil Cold Vapor Extraction, water and soil pH, STLC, TCLP. Operated Orion pH/ISE Meter 710A, cleaned glassware.

Inorganic Chemist - E. S. Babcock & Sons, Inc., Riverside, CA

Specialized in wet chemistry analysis. Trained in the following EPA Methods: Nitrite-N, Total Suspended Solids, Volatile Suspended Solids, Total Dissolved Solids, Settleable Solids, Hazmat-Total Solids, Hazmat-Volatile Solids, Volatile Acids, Phenolics, Fluorides. Operated LACHAT Quikchem FIA+ 8000 series Auto Sampler, Milton Roy MR21D Spectrophotometer and distillers. Maintained laboratory equipment such as furnaces, distillers and analytical balances.

Radio Chemist / Supervisor – Clinical Lab, Grand Terrace, CA.

Specialize in wet chemistry and radiochemistry analysis. Trained in the following EPA Methods: Gross Alpha/Beta, Uranium, Ortho-Phosphate, COD, BOD, drinking water Cyanide, Total Dissolved Solids, Fluorides, Titrations, EC and pH. Operate Protean MPC-9604 Counters for radio chemistry. Use PIC MDS counting software for radio chemistry. Experience in sample log-in, familiar with Chain of Custody. Maintain equipment including analytical balances and cleaning glassware.

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Bachelor of Science, Environmental Biology - University of California Riverside

Experience Summary

Microbiology Lead Analyst - Clinical Lab, Grand Terrace CA

8 years lab experience, prepared and setup test for Total Coliform, E. Coli, Fecal Coliform, Heterotrophic Plate Count and Iron related Bacteria. Perform Quality Control to media, bottles and glassware to assure integrity of the tests and prevent contamination. Notify clients of their results within the allotted time and assist them with their questions.

Microbiology Supervisor - Clinical Lab, Grand Terrace CA

Testing for total and fecal coliforms using enzyme based and biochemical reactions, heterotrophic plate counts, iron related bacteria, and preparing and sterilize media. Review data and QC reports along with updating SOP's.
Education/Training

Bachelor of Science: Chemistry-Biochemistry - California State University, San Bernardino

Experience Summary

R&D Chemical Stability Analyst/Lab Trainer - GAR Laboratories, Inc. Formulation & Testing Data analysis, and documentation Data tracking, batch adjustments, testing, creating COAs Lab Trainer

- QC/QA Chemist Liquid Technologies, Inc. Supervisor of manufacturing, and compounding staff Batch adjustments, testing, and batch release
- QC & Micro Lab Supervisor Panrosa Enterprises, Inc.

Developed QC and Micro validation/manufacturing system for company Supervisor of QC, micro, manufacturing, and compounding staff Supervision of all incoming & outgoing raw and finished product

Batch adjustments, stability, testing, and batch/product release

Project Manager - Clinical Lab, Grand Terrace CA

Client Services Data review and reporting Invoicing Scheduling

Education/Training

Bachelor of Science, Biochemistry – University of California Riverside

Experience Summary

Technical Superintendent Intern – Smurfit Newsprint Corp., Pomona CA

Supervised day-to-day chemical needs for this manufacturer of recycled newsprint. Interacted daily with chemical vendors, checking on orders and verifying deliveries. Maintained daily contact with chemical handlers and machine operators. Designed spreadsheets for record keeping and reports.

Field Chemist - Onsite Environments, Torrance CA

Provided hazardous waste management and customer service. Interfaced extensively with customers, dealing effectively with project managers, engineers, and other technical personnel. Perform hazardous waste management, lab packing, shipping, recycling, and manifest oversight.

Field Supervisor – Onyx Environmental Services, LLC, Azusa CA

Provide on-site supervision for environmental and safety activities. Oversee activites of 3-member crew, as well as members of Maintenance and Environmental Health and Safety Departments. Deal extensively with vendors and outside service providers. Manage waste manifests for accurate tracking from point of origin to disposal for waste leaving facility.

Client Services Manager – TestAmerica, Ontario CA

Worked with clients to provide excellent service for all of their needs. Responsible for data reports, uploading data to DPH's EDT and the EPA CDX server. Also worked as technical director, signing off on analysts' standard operating procedures and initial displays of competence. Responsible for hazardous waste, kept track of all waste streams, manifests also coordinating pickups with waste disposal company. Duties also included site emergency coordinator.

Client Services Manager/Sales - Clinical Lab, Grand Terrace CA

Responsible for all client service activities. Manages Client Services staff to assure responsible representation to Clinical Laboratory clients. Responsible for client training seminars/continuing education program. Responsible for hazardous storage and disposal. Promotes sales and marketing of laboratory services. Oversees new business development and provides quotes.

Seminars/Continuing Education

October 2012- Southern California Water Utilities Association member



References

From our many water district clients, we have chosen as our references three local water agencies. Each of these three is very familiar as you share common ground water basins. In addition, each reference agency also utilizes State Water Project imported water and each has some active treatment process.

East Valley Water District P.O. Box 3427 San Bernardino, CA 92413 Client Contact: Mike Hurst, (909) 888-8986

Fontana Water Company 11142 Garvey Avenue El Monte, CA 91734 Client Contact: John Catone, (909) 762-3348

Loma Linda City Water Department 25541 Barton Road Loma Linda, CA 92354 Client Contact: Russ Handy, (909) 799-4422 ATTACHMENT C

Analytical Fee Schedule

Current

West Valley Water District

Bid Date: September 17, 2020

			TAT	Unit
Matrix	Parameters	Method	(days)	Price (\$)
Water	Corrosivity w/field pH Panel	varies	8	25.00
Water	Corrosivity w/Field pH, GM Panel	varies	8	25.00
Water	Corrosivity w/o Field pH Panel	varies	8	25.00
Water	Corrosivity w/o Field pH Panel w/GM	varies	8	25.00
Water	General Mineral	varies	8	90.00
Water	General Physical	varies	8	12.00
Water	Inorganic Chemical Panel	varies	8	110.00
Water	Total Hardness Calculated	EPA 200.7	8	10.00
Water	UV Analysis Panel	varies	8	35.00
Water	DO - Dissolved Oxygen-Field*	Field	8	N/C
Water	Field Chlorine Residual - Free*	Field	8	N/C
Water	Field Electrical Conductivity*	Field	8	N/C
Water	Field pH*	Field	8	N/C
Water	Field Temperature (°C)*	Field	8	N/C
Water	Field Temperature (°F)*	Field	8	N/C
Water	Field Turbidity*	Field	8	N/C
Water	10 Tube Multiple Tube Fermentation	SM 9221	8	15.00
Water	15 Tube MPN (Total/Fecal Coliform)	SM 9221	8	15.00
Water	9223 Coliform Quantitray	SM 9223	8	8.00
Water	9223 LT2 Quantitray	SM 9223	8	6.75
Water	Heterotrophic Plate Count	SM9215B	8	5.00
Water	Presence/Absence	SM 9223	8	6.75
Water	Total Coliform/Ecoli (Enumeration)	SM 9223	8	8.00
Water	Cryptosporidium by LT2 (1)	EPA 1622	15	420.00
Water	Color	SM 2120BM	8	4.00
Water	Odor	EPA 140.1-M	8	4.00
Water	True Color (filtered)	SM 2120BM	8	4.00
Water	Turbidity	EPA 180.1	8	4.00
Water	UV254 - Abs	SM 5910B	8	35.00

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Water	Ammonia Digestion by Lachat	EPA 350.1	8	15.00
Water	Bicarbonate	SM 2320 B	8	5.00
Water	Biochemical Oxygen Demand	SM 5210B	8	30.00
Water	Bromate (2)	EPA 300.1	8	60.00
Water	Bromide (2)	EPA 300.1	8	55.00
Water	Biochemical Oxygen Demand-Carbonaceous	SM 5210B	8	30.00
Water	Carbonate	SM 2320B	8	5.00
Water	Chemical Oxygen Demand	HACH 8000	8	15.00
Water	Chlorate (2)	EPA 300.1	8	60.00
Water	Chloride	EPA 300.0	8	6.00
Water	Chlorite (2)	EPA 300.1	8	60.00
Water	Cyanide	SM 4500CN-F	8	20.00
Water	Dissolved Organic Carbon	SM 5310BM	8	17.50
Water	Dissolved Oxygen	SM 4500-OG	8	15.00
Water	Electrical Conductivity	SM 2510B	8	5.00
Water	Fluoride	EPA 300.0	8	6.00
Water	Hydroxide	SM 2320B	8	5.00
Water	Kjeldahl Nitrogen	EPA 351.2	8	7.50
Water	MBAS	SM 5540C	8	25.00
Water	Nitrate	EPA 300.0	8	6.00
Water	Nitrate	EPA 353.2	8	6.00
Water	Nitrate	EPA 300.0	8	6.00
Water	Nitrate	EPA 353.2	8	6.00
Water	Nitrate/Nitrite	EPA 300.0	8	12.00
Water	Nitrite as N	EPA 300.0	8	6.00
Water	Nitrite as N	EPA 353.2	8	6.00
Water	Nitrogen, Inorganic	Calc	8	25.00
Water	Nitrogen, Total	Calc	8	25.00
Water	Oil & Grease	EPA 1664A	8	55.00
Water	Ortho-Phosphate-P (PO4-P) E365.2/H8048	HACH 8048	8	10.00
Water	Perchlorate	EPA 314.0	8	17.50
Water	Perchlorate	EPA 314.0	4-hr	52.50
Water	Perchlorate	EPA 314.0	24-hr	35.00
Water	рН	SM 4500HB	8	4.00
Water	Phosphorus - Ortho	HACH 8048	8	10.00
Water	Phosphorus - Total	HACH 8190	8	25.00
Water	Phosphorus - Total as P	HACH 8190	8	25.00
Water	Settleable Solids	SM 2540F	8	10.00

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Water	Sulfate	EPA 300.0	8	6.00
Water	Sulfide	SM 4500S2D	8	10.00
Water	Sulfide, Dissolved	SM 4500S2D	8	10.00
Water	Suspended Solids	SM 2540D	8	15.00
Water	Total Alkalinity	SM 2320B	8	5.00
Water	Total Dissolved Solids	SM 2540C	8	15.00
Water	Total Organic Carbon	SM 5310B	8	17.50
Water	Total Petroleum Hydrocarbons	EPA 1664A	8	40.00
Water	Total Solid	SM 2540B	8	15.00
Water	Aluminum	EPA 200.7	8	5.00
Water	Antimony	EPA 200.8	8	5.00
Water	Arsenic	EPA 200.8	8	5.00
Water	Barium	EPA 200.7	8	5.00
Water	Beryllium	EPA 200.8	8	5.00
Water	Boron	EPA 200.7	8	5.00
Water	Cadmium	EPA 200.8	8	5.00
Water	Calcium	EPA 200.7	8	5.00
Water	Chromium	EPA 200.8	8	5.00
Water	Chromium Hexavalent	EPA 218.6	8	35.00
Water	Chromium Trivalent	Calc	8	40.00
Water	Cobalt	EPA 200.7	8	5.00
Water	Copper	EPA 200.7	8	5.00
Water	Iron	EPA 200.7	8	5.00
Water	Iron & Manganese	EPA 200.7	8	10.00
Water	Lead (School Program)	EPA 200.8	8	11.00
Water	Lead (School Program)	SM 3113B	8	11.00
Water	Lead	EPA 200.8	8	5.00
Water	Lead & Copper	EPA 200.8 / 200.7	8	10.00
Water	Magnesium	EPA 200.7	8	5.00
Water	Manganese	EPA 200.7	8	5.00
Water	Mercury	EPA 200.8	8	20.00
Water	Molybdenum	EPA 200.7	8	5.00
Water	Nickel	EPA 200.8	8	5.00
Water	Potassium	EPA 200.7	8	5.00
Water	Selenium	EPA 200.8	8	5.00
Water	Silica	EPA 200.7	8	5.00
Water	Silver	EPA 200.8	8	5.00
Water	Sodium	EPA 200.7	8	5.00

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Water	Thallium	EPA 200.8	8	5.00
Water	Vanadium	EPA 200.8	8	5.00
Water	Zinc	EPA 200.7	8	5.00
Water	Gross Alpha	SM 7110C	8	35.00
Water	Gross Alpha / Beta (3)	EPA 900.0	15	70.00
Water	Gross Beta (3)	EPA 900.0	15	35.00
Water	Radon (4)	Radon	15	60.00
Water	Uranium (Radiological)	EPA 200.8	8	25.00
Water	Uranium (3)	EPA 908.0	15	50.00
Water	МТВЕ	EPA 524.2	8	12.50
Water	MTBE & Benzene	EPA 524.2	8	25.00
Water	MTBE, Benzene, PCE	EPA 524.2	8	25.00
Water	MTBE, Benzene, PCE, TCE	EPA 524.2	8	25.00
Water	PCE/TCE	EPA 524.2	8	25.00
Water	Purgeable Organics	EPA 524.2	8	100.00
Water	TCE+Trihalomethanes	EPA 524.2	8	35.00
Water	Tetrachloroethlyene	EPA 524.2	8	12.50
Water	Trichloroethylene	EPA 524.2	8	12.50
Water	DBCP	EPA 504.1	8	40.00
Water	EDB/ DBCP	EPA 504.1	8	40.00
Water	1,2,3-TCP	SRL 524M-TCP	8	35.00
Water	Carbamates	EPA 531.1	8	70.00
Water	Chlorinated Acid Herbicides	EPA 515.4	8	90.00
Water	Diquat	EPA 549.2	8	90.00
Water	Endothall	EPA 548.1	8	70.00
Water	Glyposate	EPA 547	8	70.00
Water	Pesticides / PCB	EPA 508.1	8	75.00
Water	Semi-Volatile Organic Compounds	EPA 525.2	8	150.00
Water	Triazine Pesticides	EPA 507	8	105.00
Water	Trihalomethanes	EPA 524.2	8	30.00
Water	THM Max Potiential	EPA 510.1	8	40.00
Water	Haloacetic Acid 5	EPA 552.2	8	60.00
Water	Haloacetic Acid Max Pot	EPA 552.2	8	60.00
Water	1,4-Dioxane (4)	EPA 8270	15	200.00
Water	Acute Toxicity - % Survival (5)	EPA-821-R-02-012	15	250.00
Water	Asbestos (6)	EPA 100.2	15	150.00
Water	Dioxin (4)	EPA 1613B	15	275.00
Water	Dioxin in Wastewater (7)	EPA 1613B	15	650.00

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Water	Geosmin and MIB (8)	SM 6040D	15	250.00
Water	NDMA (4)	EPA 521	15	300.00
Water	Nitrosamines (4)	EPA 521	15	300.00
Water	Organochlorine Pesticide (2)	EPA 608	8	105.00
Water	Organochlorine Pesticides (2)	EPA 8081	8	150.00
Water	Phenolic Compounds (2)	EPA 420.4	8	70.00
Water	Polychlorinated Biphenyls (2)	EPA 8082	8	150.00
Water	Purgeable Organics (2)	EPA 624	8	135.00
Water	Radium 226 (3)	EPA 903.0	15	115.00
Water	Radium 228 (3)	EPA 900.0	15	160.00
Water	Semi-Volatile Organics (2)	EPA 625	8	290.00
Water	Semi-Volatile Organics (2)	EPA 8270	8	225.00
Water	Speciation (4)	Focus 52235	15	75.00
Water	Strontium 90 (3)	EPA 905.0	15	200.00
Water	TPH-Gas/Diesel Range (2)	EPA 8015	8	150.00
Water	Tritium (3)	EPA 906.0	15	100.00
Water	Volatile Organics (2)	EPA 8260B	8	110.00
Water	Volatile Organics-TCE ONLY (2)	EPA 8260B	8	80.00

TOTAL

*All results from the field that are included on the Chain of Custody, such as temperature and pH, need to be included on the final report.

- (1) Subcontract Lab: Cel Analytical
- (2) Subcontract Lab: CLS Lab
- (3) Subcontract Lab: Davi Lab
- (4) Subcontract Lab: Weck Lab
- (5) Subcontract Lab: Aquatic Bioassay
- (6) Subcontract Lab: LA Testing
- (7) Subcontract Lab: Pace Analytical
- (8) Subcontract Lab: Eurofin Analytical

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Appendix A

California ELAP Certificates



SEAL OF THE STATE

CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

Clinical Laboratory of San Bernardino, Inc.

21881 Barton Road

Grand Terrace, CA 92313

Scope of the certificate is limited to the "Fields of Testing" which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: 1088

Expiration Date: 1/31/2022

Effective Date: 2/1/2020

Griatin Set

Sacramento, California subject to forfeiture or revocation

Christine Sotelo, Chief Environmental Laboratory Accreditation Program



CALIFORNIA STATE ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM Accredited Fields of Testing



Clinical Laboratory of San Bernardino, Inc.

21881 Barton Road Grand Terrace, CA 92313 Phone: 9098257693 Certificate No. 1088 Expiration Date 1/31/2022

Field of	Testing	: 101 - Microbiology of Drinking Water	
101.010	001	Heterotrophic Bacteria	SM 9215 B
101.020	004	Total Coliform (Enumeration)	SM 9221 B,C
101.020	005	Fecal Coliform (Enumeration)	SM 9221 B,E
101.050	001	Total Coliform P/A	SM 9223 B Colilert
101.050	002	E. coli P/A	SM 9223 B Colilert
101.050	005	Total Coliform P/A	SM 9223 B Colilert 18
101.050	006	E. coli P/A	SM 9223 B Colilert 18
101.050	007	Total Coliform (Enumeration)	SM 9223 B Colilert 18
101.050	800	E. coli (Enumeration)	SM 9223 B Colilert 18
Field of	Testing	: 102 - Inorganic Chemistry of Drinking W	ater
102.020	001	Turbidity	EPA 180.1
102.026	001	Calcium	EPA 200.7
102.026	002	Magnesium	EPA 200.7
102.026	003	Potassium	EPA 200.7
102.026	004	Silica	EPA 200.7
102.026	005	Sodium	EPA 200.7
102.026	006	Hardness (Calculation)	EPA 200.7
102.030	003	Chloride	EPA 300.0
102.030	005	Fluoride	EPA 300.0
102.030	006	Nitrate (as N)	EPA 300.0
102.030	007	Nitrite (as N)	EPA 300.0
102.030	009	Sulfate (as SO4)	EPA 300.0
102.045	001	Perchlorate	EPA 314.0
102.060	001	Nitrate (as N) (Calculation)	EPA 353.2
102.061	001	Nitrite (as N)	EPA 353.2
102.100	001	Alkalinity	SM 2320 B-1997
102.130	001	Specific Conductance	SM 2510 B-1997
102.140	001	Residue, Filterable TDS	SM 2540 C-1997
102.175	001	Chlorine, Free	SM 4500-CI G-2000
102.175	002	Chlorine, Total Residual	SM 4500-Cl G-2000
102.191	001	Cyanide, Total	SM 4500-CN F-1999
102.203	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000
102.240	001	Phosphate,Ortho (as P)	SM 4500-P E-1999

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102.260	001	Organic Carbon-Total (TOC)	SM 5310 B-2000
102.261	001	Dissolved Organic Carbon (DOC)	SM 5310 B-2000
102.270	001	Surfactants	SM 5540 C-2000
102.280	001	UV254	SM 5910 B-2011
Field of	Testing	: 103 - Toxic Chemical Elements of Drinki	ng Water
103.040	002	Antimony	SM 3113 B
103.040	003	Arsenic	SM 3113 B
103.040	005	Beryllium	SM 3113 B
103.040	006	Cadmium	SM 3113 B
103.040	007	Chromium	SM 3113 B
103.040	010	Lead	SM 3113 B
103.040	012	Nickel	SM 3113 B
103.040	013	Selenium	SM 3113 B
103.040	014	Silver	SM 3113 B
103.130	001	Aluminum	EPA 200.7
103.130	003	Barium	EPA 200.7
103.130	004	Beryllium	EPA 200.7
103.130	005	Cadmium	EPA 200.7
103.130	007	Chromium	EPA 200.7
103.130	800	Copper	EPA 200.7
103.130	009	Iron	EPA 200.7
103.130	011	Manganese	EPA 200.7
103.130	012	Nickel	EPA 200.7
103.130	015	Silver	EPA 200.7
103.130	017	Zinc	EPA 200.7
103.130	018	Boron	EPA 200.7
103.140	001	Aluminum	EPA 200.8
103.140	002	Antimony	EPA 200.8
103.140	003	Arsenic	EPA 200.8
103.140	004	Barium	EPA 200.8
103.140	005	Beryllium	EPA 200.8
103.140	006	Cadmium	EPA 200.8
103.140	007	Chromium	EPA 200.8
103.140	008	Copper	EPA 200.8
103.140	009	Lead	EPA 200.8
103.140	010	Manganese	EPA 200.8
103.140	011	Mercury	EPA 200.8
103.140	012	Nickel	EPA 200.8
103.140	013	Selenium	EPA 200.8
103.140	014	Silver	EPA 200.8
103.140	015	Thallium	EPA 200.8
103.140	016	Zinc	EPA 200.8

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103.140	017	Boron	EPA 200.8
103.140	018	Vanadium	EPA 200.8
103.140	019	Strontium	EPA 200.8
103.150	014	Thallium	EPA 200.9
103.150	015	Vanadium	EPA 200.9
103.310	001	Chromium (VI)	EPA 218.6
Field of	Testing	: 104 - Volatile Organic Chemistry of Drin	king Water
104.030	001	1,2-Dibromoethane (EDB, Ethylene Dibromide)	EPA 504.1
104.030	002	1,2-Dibromo-3-chloropropane (DBCP)	EPA 504.1
104.035	001	1,2,3-Trichloropropane (TCP)	SRL 524M-TCP
104.040	001	Benzene	EPA 524.2
104.040	007	n-Butylbenzene	EPA 524.2
104.040	800	sec-Butylbenzene	EPA 524.2
104.040	009	tert-Butylbenzene	EPA 524.2
104.040	010	Carbon Tetrachloride	EPA 524.2
104.040	011	Chlorobenzene	EPA 524.2
104.040	015	2-Chlorotoluene	EPA 524.2
104.040	016	4-Chlorotoluene	EPA 524.2
104.040	019	1,3-Dichlorobenzene	EPA 524.2
104.040	020	1,2-Dichlorobenzene	EPA 524.2
104.040	021	1,4-Dichlorobenzene	EPA 524.2
104.040	022	Dichlorodifluoromethane	EPA 524.2
104.040	023	1,1-Dichloroethane	EPA 524.2
104.040	024	1,2-Dichloroethane	EPA 524.2
104.040	025	1,1-Dichloroethene (1,1-Dichloroethylene)	EPA 524.2
104.040	026	cis-1,2-Dichloroethene	EPA 524.2
104.040	027	trans-1,2-Dichloroethene	EPA 524.2
104.040	028	Dichloromethane (Methylene Chloride)	EPA 524.2
104.040	029	1,2-Dichloropropane	EPA 524.2
104.040	033	cis-1,3-Dichloropropene	EPA 524.2
104.040	034	trans-1,3-Dichloropropene	EPA 524.2
104.040	035	Ethylbenzene	EPA 524.2
104.040	037	Isopropylbenzene	EPA 524.2
104.040	041	N-propylbenzene	EPA 524.2
104.040	042	Styrene	EPA 524.2
104.040	043	1,1,1,2-Tetrachloroethane	EPA 524.2
104.040	044	1,1,2,2-Tetrachloroethane	EPA 524.2
104.040	045	Tetrachloroethylene (Tetrachloroethene)	EPA 524.2
104.040	046	Toluene	EPA 524.2
104.040	047	1,2,3-Trichlorobenzene	EPA 524.2
104.040	048	1,2,4-Trichlorobenzene	EPA 524.2
104.040	049	1,1,1-Trichloroethane	EPA 524.2

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104.040	050	1,1,2-Trichloroethane	EPA 524.2
104.040	051	Trichloroethene	EPA 524.2
104.040	052	Trichlorofluoromethane	EPA 524.2
104.040	054	1,2,4-Trimethylbenzene	EPA 524.2
104.040	055	1,3,5-Trimethylbenzene	EPA 524.2
104.040	056	Vinyl Chloride	EPA 524.2
104.040	057	Xylenes, Total	EPA 524.2
104.045	000	Trihalomethanes, Total	EPA 524.2
104.045	001	Bromodichloromethane	EPA 524.2
104.045	002	Bromoform	EPA 524.2
104.045	003	Chloroform	EPA 524.2
104.045	004	Dibromochloromethane	EPA 524.2
104.050	002	Methyl tert-butyl Ether (MTBE)	EPA 524.2
104.050	003	tert-Amyl Methyl Ether (TAME)	EPA 524.2
104.050	004	Ethyl tert-butyl Ether (ETBE)	EPA 524.2
104.050	005	Trichlorotrifluoroethane	EPA 524.2
104.050	006	tert-Butyl Alcohol (TBA)	EPA 524.2
Field of	Testing	: 105 - Semi-volatile Organic Chemistry o	f Drinking Water
105.030	001	Alachlor	EPA 507
105.030	002	Atrazine	EPA 507
105.030	007	Molinate	EPA 507
105.030	009	Simazine	EPA 507
105.030 105.050	009 005	Simazine Chlordane (total)	EPA 507 EPA 508.1
105.030 105.050 105.050	009 005 010	Simazine Chlordane (total) Endrin	EPA 507 EPA 508.1 EPA 508.1
105.030 105.050 105.050 105.050	009 005 010 011	Simazine Chlordane (total) Endrin Heptachlor	EPA 507 EPA 508.1 EPA 508.1 EPA 508.1
105.030 105.050 105.050 105.050 105.050	009 005 010 011 012	Simazine Chlordane (total) Endrin Heptachlor Heptachlor Epoxide	EPA 507 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1
105.030 105.050 105.050 105.050 105.050 105.050	009 005 010 011 012 013	Simazine Chlordane (total) Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene	EPA 507 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1
105.030 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050	009 005 010 011 012 013 014	Simazine Chlordane (total) Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene	EPA 507 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1
105.030 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050	009 005 010 011 012 013 014 015	Simazine Chlordane (total) Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane (HCH-gamma)	EPA 507 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1
$ \begin{array}{r} 105.030 \\ 105.050 \\ 105.050 \\ 105.050 \\ 105.050 \\ 105.050 \\ 105.050 \\ 105.050 \\ 105.050 \\ 105.050 \\ \end{array} $	009 005 010 011 012 013 014 015 016	Simazine Chlordane (total) Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane (HCH-gamma) Methoxychlor	EPA 507 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1
105.030 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050	009 005 010 011 012 013 014 015 016 028	Simazine Chlordane (total) Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane (HCH-gamma) Methoxychlor PCBs as Aroclors	EPA 507 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1 EPA 508.1
105.030 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050	009 005 010 011 012 013 014 015 016 028 029	Simazine Chlordane (total) Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane (HCH-gamma) Methoxychlor PCBs as Aroclors Toxaphene	EPA 507 EPA 508.1 EPA 508.1
105.030 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050	009 005 010 011 012 013 014 015 016 028 029 001	Simazine Chlordane (total) Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane (HCH-gamma) Methoxychlor PCBs as Aroclors Toxaphene 2,4-D	EPA 507 EPA 508.1
105.030 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.053 105.083 105.083	009 005 010 011 012 013 014 015 016 028 029 001 002	Simazine Chlordane (total) Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane (HCH-gamma) Methoxychlor PCBs as Aroclors Toxaphene 2,4-D Dinoseb	EPA 507 EPA 508.1 EPA 508.1
105.030 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.053 105.083 105.083	009 005 010 011 012 013 014 015 016 028 029 001 002 003	Simazine Chlordane (total) Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane (HCH-gamma) Methoxychlor PCBs as Aroclors Toxaphene 2,4-D Dinoseb Pentachlorophenol	EPA 507 EPA 508.1
105.030 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.053 105.083 105.083 105.083 105.083	009 005 010 011 012 013 014 015 016 028 029 001 002 003 004	Simazine Chlordane (total) Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane (HCH-gamma) Methoxychlor PCBs as Aroclors Toxaphene 2,4-D Dinoseb Pentachlorophenol Picloram	EPA 507 EPA 508.1 EPA 515.4 EPA 515.4 EPA 515.4
105.030 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.053 105.083 105.083 105.083 105.083	009 005 010 011 012 013 014 015 016 028 029 001 002 003 004 005	Simazine Chlordane (total) Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane (HCH-gamma) Methoxychlor PCBs as Aroclors Toxaphene 2,4-D Dinoseb Pentachlorophenol Picloram 2,4,5-TP (Silvex)	EPA 507 EPA 508.1 EPA 515.4 EPA 515.4 EPA 515.4 EPA 515.4
105.030 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.083 105.083 105.083 105.083 105.083 105.083 105.083	009 005 010 011 012 013 014 015 016 028 029 001 002 003 004 005 006	Simazine Chlordane (total) Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane (HCH-gamma) Methoxychlor PCBs as Aroclors Toxaphene 2,4-D Dinoseb Pentachlorophenol Picloram 2,4,5-TP (Silvex) Dalapon	EPA 507 EPA 508.1 EPA 515.4 EPA 515.4 EPA 515.4 EPA 515.4 EPA 515.4
105.030 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.083 105.083 105.083 105.083 105.083 105.083 105.083	009 005 010 011 012 013 014 015 016 029 001 002 003 004 005 006 007	Simazine Chlordane (total) Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane (HCH-gamma) Methoxychlor PCBs as Aroclors Toxaphene 2,4-D Dinoseb Pentachlorophenol Picloram 2,4,5-TP (Silvex) Dalapon Bentazon	EPA 507 EPA 508.1 EPA 515.4 EPA 515.4 EPA 515.4 EPA 515.4 EPA 515.4 EPA 515.4
105.030 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.053 105.083 105.083 105.083 105.083 105.083 105.083 105.083 105.083 105.083 105.083 105.083 105.083	009 005 010 011 012 013 014 015 016 028 029 001 002 003 004 005 006 007 001	Simazine Chlordane (total) Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane (HCH-gamma) Methoxychlor PCBs as Aroclors Toxaphene 2,4-D Dinoseb Pentachlorophenol Picloram 2,4,5-TP (Silvex) Dalapon Bentazon Alachlor	EPA 507 EPA 508.1 EPA 515.4 EPA 515.4
105.030 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.050 105.083 105.083 105.083 105.083 105.083 105.083 105.083 105.083 105.083 105.083 105.083 105.083 105.083 105.083 105.090	009 005 010 011 012 013 014 015 016 029 001 002 003 004 005 006 007 001 003	Simazine Chlordane (total) Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane (HCH-gamma) Methoxychlor PCBs as Aroclors Toxaphene 2,4-D Dinoseb Pentachlorophenol Picloram 2,4,5-TP (Silvex) Dalapon Bentazon Alachlor	EPA 507 EPA 508.1 EPA 515.4 EPA 515.4 EPA 515.4 EPA 515.4 EPA 515.4 EPA 525.2 EPA 525.2

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105.090	800	Di(2-ethylhexyl) Adipate	EPA 525.2
105.090	009	Di(2-ethylhexyl) Phthalate	EPA 525.2
105.090	022	Molinate	EPA 525.2
105.090	025	Simazine	EPA 525.2
105.090	028	Thiobencarb	EPA 525.2
105.100	001	Aldicarb	EPA 531.1
105.100	002	Aldicarb Sulfone	EPA 531.1
105.100	003	Aldicarb Sulfoxide	EPA 531.1
105.100	004	Carbaryl	EPA 531.1
105.100	005	Carbofuran	EPA 531.1
105.100	006	3-Hydroxycarbofuran	EPA 531.1
105.100	007	Methomyl	EPA 531.1
105.100	800	Oxamyl	EPA 531.1
105.120	001	Glyphosate	EPA 547
105.140	001	Endothall	EPA 548.1
105.150	001	Diquat	EPA 549.2
105.200	001	Bromoacetic Acid	EPA 552.2
105.200	003	Chloroacetic Acid	EPA 552.2
105.200	005	Dibromoacetic Acid	EPA 552.2
105.200	006	Dichloroacetic Acid	EPA 552.2
105.200	007	Trichloroacetic Acid	EPA 552.2
105.200	800	Haloacetic Acids (HAA5)	EPA 552.2
Field of	Testing	: 106 - Radionuclides in Drinking Water	
106.092	001	Uranium	EPA 200.8
106.270	001	Gross Alpha	SM 7110 C
Field of	Testing	: 107 - Microbiological Methods for Non-P	otable Water and Sewage Sludge
107.001	001	Total Coliform (Enumeration)	SM 9221 B,C-2006
107.001	002	Fecal Coliform (Enumeration)	SM 9221 C.E-2006
Field of	Tostina	• 108 - Inorganic Constituents in Non-Pot	bha Water
108.007	001	Residue Volatile	EPA 160 4 (1971)
108.009	001		
108.013	001	Turbidity	EPA 180 1 (1993 Rev. 2 0)
100.010	001	Turbidity	EPA 180.1 (1993 Rev. 2.0)
108 013	001 001 002	Turbidity Calcium Magnesium	EPA 180.1 (1993 Rev. 2.0) EPA 200.7 (1994 Rev. 4.4) EPA 200 7 (1994 Rev. 4.4)
108.013	001 001 002 004	Turbidity Calcium Magnesium	EPA 180.1 (1993 Rev. 2.0) EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
108.013 108.013 108.013	001 001 002 004 005	Turbidity Calcium Magnesium Potassium Silica Dissolved	EPA 180.1 (1993 Rev. 2.0) EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4) EPA 200 7 (1994 Rev. 4.4)
108.013 108.013 108.013 108.013	001 001 002 004 005 006	Turbidity Calcium Magnesium Potassium Silica, Dissolved Sodium	EPA 180.1 (1993 Rev. 2.0) EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4) EPA 200 7 (1994 Rev. 4.4)
108.013 108.013 108.013 108.013 108.013	001 002 004 005 006	Turbidity Calcium Magnesium Potassium Silica, Dissolved Sodium Chloride	EPA 180.1 (1993 Rev. 2.0) EPA 200.7 (1994 Rev. 4.4)
108.013 108.013 108.013 108.013 108.013 108.017	001 001 002 004 005 006 002 003	Turbidity Calcium Magnesium Potassium Silica, Dissolved Sodium Chloride Eluoride	EPA 180.1 (1993 Rev. 2.0) EPA 200.7 (1994 Rev. 4.4) EPA 300.0 (1993 Rev. 2.1)
108.013 108.013 108.013 108.013 108.013 108.017 108.017 108.017	001 002 004 005 006 002 003 003	Turbidity Calcium Magnesium Potassium Silica, Dissolved Sodium Chloride Fluoride Nitrate (as N)	EPA 180.1 (1993 Rev. 2.0) EPA 200.7 (1994 Rev. 4.4) EPA 300.0 (1993 Rev. 2.1) EPA 300.0 (1993 Rev. 2.1)
108.013 108.013 108.013 108.013 108.013 108.017 108.017 108.017	001 002 004 005 006 002 003 003 004	Turbidity Calcium Magnesium Potassium Silica, Dissolved Sodium Chloride Fluoride Nitrate (as N) Nitrate.Nitrite (as N)	EPA 180.1 (1993 Rev. 2.0) EPA 200.7 (1994 Rev. 4.4) EPA 300.0 (1993 Rev. 2.1) EPA 300.0 (1993 Rev. 2.1) EPA 300.0 (1993 Rev. 2.1)
108.013 108.013 108.013 108.013 108.013 108.017 108.017 108.017 108.017 108.017	001 002 004 005 006 002 003 003 004 005 006	Turbidity Calcium Magnesium Potassium Silica, Dissolved Sodium Chloride Fluoride Nitrate (as N) Nitrate (as N) Nitrate (as N)	EPA 180.1 (1993 Rev. 2.0) EPA 200.7 (1994 Rev. 4.4) EPA 300.0 (1993 Rev. 2.1)
108.013 108.013 108.013 108.013 108.013 108.017 108.017 108.017 108.017 108.017	001 002 004 005 006 002 003 003 004 005 006	Turbidity Calcium Magnesium Potassium Silica, Dissolved Sodium Chloride Fluoride Fluoride Nitrate (as N) Nitrate (as N) Nitrate (as SQ4)	EPA 180.1 (1993 Rev. 2.0) EPA 200.7 (1994 Rev. 4.4) EPA 300.0 (1993 Rev. 2.1) EPA 300.0 (1993 Rev. 2.1)

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108.025	001	Ammonia (as N)	EPA 350.1 (1993 Rev. 2.0)
108.029	001	Kjeldahl Nitrogen, Total (as N)	EPA 351.2 (1993 Rev. 2.0)
108.033	001	Nitrate-Nitrite (as N)	EPA 353.2 (1993 Rev. 2.0)
108.033	002	Nitrite (as N)	EPA 353.2 (1993 Rev. 2.0)
108.053	002	Oil & Grease Total	EPA 1664 B
108.063	001	Alkalinity	SM 2320 B-2011
108.069	001	Specific Conductance	SM 2510 B-2011
108.071	001	Residue, Total	SM 2540 B-2011
108.073	001	Residue, Filterable TDS	SM 2540 C-2011
108.075	001	Residue, Non-filterable TSS	SM 2540 D-2011
108.079	001	Residue, Settleable	SM 2540 F-2011
108.114	001	Chlorine, Total Residual	SM 4500-Cl G-2011
108.137	001	Hydrogen Ion (pH)	SM 4500-H+ B-2011
108.173	001	Oxygen, Dissolved	SM 4500-O G-2011
108.175	001	Phosphate,Ortho (as P)	SM 4500-P E-2011
108.175	002	Phosphorus,Total	SM 4500-P E-2011
108.201	001	Sulfide (as S)	SM 4500-S D-2011
108.207	001	Biochemical Oxygen Demand	SM 5210 B-2011
108.207	002	Carbonaceous BOD	SM 5210 B-2011
108.215	001	Organic Carbon-Total (TOC)	SM 5310 B-2011
108.225	001	Surfactants	SM 5540 C-2011
108.325	001	Chemical Oxygen Demand	Hach 8000
108.325	001 Testing	Chemical Oxygen Demand : 109 - Metals and Trace Elements in Non	Hach 8000 -Potable Water
108.325 Field of 109.623	001 Testing 001	Chemical Oxygen Demand : 109 - Metals and Trace Elements in Non Aluminum	Hach 8000 -Potable Water EPA 200.7 (1994 Rev. 4.4)
108.325 Field of 109.623 109.623	001 Testing 001 004	Chemical Oxygen Demand : 109 - Metals and Trace Elements in Non Aluminum Barium	Hach 8000 -Potable Water EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
108.325 Field of 109.623 109.623 109.623	001 Testing 001 004 005	Chemical Oxygen Demand : 109 - Metals and Trace Elements in Non Aluminum Barium Beryllium	Hach 8000 -Potable Water EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
108.325 Field of [•] 109.623 109.623 109.623 109.623	001 Testing 001 004 005 006	Chemical Oxygen Demand : 109 - Metals and Trace Elements in Non Aluminum Barium Beryllium Boron	Hach 8000 -Potable Water EPA 200.7 (1994 Rev. 4.4)
108.325 Field of ⁷ 109.623 109.623 109.623 109.623 109.623	001 Testing 001 004 005 006 007	Chemical Oxygen Demand : 109 - Metals and Trace Elements in Non Aluminum Barium Beryllium Boron Cadmium	Hach 8000 -Potable Water EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
108.325 Field of [•] 109.623 109.623 109.623 109.623 109.623 109.623	001 Testing 001 004 005 006 007 008	Chemical Oxygen Demand : 109 - Metals and Trace Elements in Non Aluminum Barium Beryllium Boron Cadmium Chromium	Hach 8000 -Potable Water EPA 200.7 (1994 Rev. 4.4)
108.325 Field of 109.623 109.623 109.623 109.623 109.623 109.623 109.623	001 Testing 001 004 005 006 007 008 009	Chemical Oxygen Demand : 109 - Metals and Trace Elements in Non Aluminum Barium Beryllium Boron Cadmium Chromium Cobalt	Hach 8000 -Potable Water EPA 200.7 (1994 Rev. 4.4)
108.325 Field of 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623	001 Testing 001 004 005 006 007 008 009 010	Chemical Oxygen Demand : 109 - Metals and Trace Elements in Non Aluminum Barium Beryllium Boron Cadmium Chromium Cobalt Copper	Hach 8000 -Potable Water EPA 200.7 (1994 Rev. 4.4)
108.325 Field of ⁻ 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623	001 Testing 001 004 005 006 007 008 009 010 011	Chemical Oxygen Demand : 109 - Metals and Trace Elements in Non Aluminum Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron	Hach 8000 -Potable Water EPA 200.7 (1994 Rev. 4.4)
108.325 Field of 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623	001 Testing 001 004 005 006 007 008 009 010 011 013	Chemical Oxygen Demand : 109 - Metals and Trace Elements in Non Aluminum Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron Manganese	Hach 8000 -Potable Water EPA 200.7 (1994 Rev. 4.4)
108.325 Field of 109.623	001 Testing 001 004 005 006 007 008 009 010 011 013 014	Chemical Oxygen Demand : 109 - Metals and Trace Elements in Non Aluminum Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron Manganese Molybdenum	Hach 8000 -Potable Water EPA 200.7 (1994 Rev. 4.4)
108.325 Field of 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623	001 Testing 001 004 005 006 007 008 009 010 011 013 014 015	Chemical Oxygen Demand : 109 - Metals and Trace Elements in Non Aluminum Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron Manganese Molybdenum Nickel	Hach 8000 -Potable Water EPA 200.7 (1994 Rev. 4.4)
108.325 Field of 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623	001 Testing 001 004 005 006 007 008 009 010 011 013 014 015 017	Chemical Oxygen Demand : 109 - Metals and Trace Elements in Non Aluminum Barium Beryllium Boron Cadmium Chromium Chromium Cobalt Copper Iron Manganese Molybdenum Nickel Silver	Hach 8000 -Potable Water EPA 200.7 (1994 Rev. 4.4)
108.325 Field of 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623	001 Testing 001 004 005 006 007 008 009 010 011 013 014 015 017 022	Chemical Oxygen Demand : 109 - Metals and Trace Elements in Non Aluminum Barium Beryllium Boron Cadmium Chromium Cobalt Cobalt Copper Iron Manganese Molybdenum Nickel Silver Zinc	Hach 8000 -Potable Water EPA 200.7 (1994 Rev. 4.4)
108.325 Field of 109.623	001 Testing 001 004 005 006 007 008 009 010 011 013 014 015 017 022 001	Chemical Oxygen Demand : 109 - Metals and Trace Elements in Non Aluminum Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron Manganese Molybdenum Nickel Silver Zinc Aluminum	Hach 8000 -Potable Water EPA 200.7 (1994 Rev. 4.4)
108.325 Field of 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.625 109.625	001 Testing 001 004 005 006 007 008 009 010 011 013 014 015 017 022 001 002	Chemical Oxygen Demand : 109 - Metals and Trace Elements in Non Aluminum Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron Manganese Molybdenum Nickel Silver Zinc Aluminum Antimony	Hach 8000 -Potable Water EPA 200.7 (1994 Rev. 4.4) EPA 200.8 (1994 Rev. 5.4)
108.325 Field of 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.625 109.625 109.625	001 Testing 001 004 005 006 007 008 009 010 011 013 011 013 014 015 017 022 001 002 003	Chemical Oxygen Demand : 109 - Metals and Trace Elements in Non Aluminum Barium Barium Boron Cadmium Cadmium Chromium Cobalt Copper Iron Manganese Molybdenum Nickel Silver Zinc Aluminum Antimony Arsenic	Hach 8000 -Potable Water EPA 200.7 (1994 Rev. 4.4) EPA 200.8 (1994 Rev. 5.4) EPA 200.8 (1994 Rev. 5.4) EPA 200.8 (1994 Rev. 5.4)
108.325 Field of 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.625 109.625 109.625 109.625	001 Testing 001 004 005 006 007 008 009 010 011 013 014 015 017 022 001 002 003 004	Chemical Oxygen Demand : 109 - Metals and Trace Elements in Non Aluminum Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron Manganese Molybdenum Nickel Silver Zinc Aluminum Antimony Arsenic Barium	Hach 8000 -Potable Water EPA 200.7 (1994 Rev. 4.4) EPA 200.8 (1994 Rev. 5.4) EPA 200.8 (1994 Rev. 5.4) EPA 200.8 (1994 Rev. 5.4) EPA 200.8 (1994 Rev. 5.4)

Certificate No.:	1088
Expiration Date:	1/31/2022

109.625	007	Cadmium	EPA 200.8 (1994 Rev. 5.4)
109.625	800	Chromium	EPA 200.8 (1994 Rev. 5.4)
109.625	009	Cobalt	EPA 200.8 (1994 Rev. 5.4)
109.625	010	Copper	EPA 200.8 (1994 Rev. 5.4)
109.625	013	Lead	EPA 200.8 (1994 Rev. 5.4)
109.625	014	Manganese	EPA 200.8 (1994 Rev. 5.4)
109.625	015	Molybdenum	EPA 200.8 (1994 Rev. 5.4)
109.625	016	Nickel	EPA 200.8 (1994 Rev. 5.4)
109.625	017	Selenium	EPA 200.8 (1994 Rev. 5.4)
109.625	018	Silver	EPA 200.8 (1994 Rev. 5.4)
109.625	019	Thallium	EPA 200.8 (1994 Rev. 5.4)
109.625	022	Vanadium	EPA 200.8 (1994 Rev. 5.4)
109.625	023	Zinc	EPA 200.8 (1994 Rev. 5.4)
109.627	015	Thallium	EPA 200.9 (1994 Rev.2.2)
109.629	001	Chromium (VI)	EPA 218.6 (1994 Rev. 3.3)
109.669	002	Antimony	SM 3113 B-2010
109.669	003	Arsenic	SM 3113 B-2010
109.669	005	Beryllium	SM 3113 B-2010
109.669	006	Cadmium	SM 3113 B-2010
109.669	007	Chromium	SM 3113 B-2010
109.669	012	Lead	SM 3113 B-2010
109.669	015	Nickel	SM 3113 B-2010
109.669	016	Selenium	SM 3113 B-2010
109.669	017	Silver	SM 3113 B-2010
Field of	Testing	: 126 - Microbiological Methods for Ambie	nt Water
126.003	001	Total Coliform (Enumeration)	SM 9221 B,C-2006
126.003	002	Fecal Coliform (Enumeration)	SM 9221 C,E-2006
126.017	001	E. coli (Enumeration)	Colilert 18
-			

3.3.b



CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

Cel Analytical, Inc.

Laboratory

82 Mary Street, Suite 2

San Francisco, CA 94103

Scope of the certificate is limited to the "Fields of Testing" which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: 2647 Expiration Date: 2/28/2021

Effective Date: 3/1/2019

Christine Sotelo, Chief Environmental Laboratory Accreditation Program

Sacramento, California subject to forfeiture or revocation



CALIFORNIA STATE ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM Accredited Fields of Testing



Cel Analytical, Inc. Laboratory

82 Mary Street, Suite 2 San Francisco, CA 94103 Phone: 4158821690 Certificate No. 2647 Expiration Date 2/28/2021

Field of Testing: 101 - Microbiology of Drinking Water				
101.010	001	Heterotrophic Bacteria	SM 9215 B	
101.020	001	Total Coliform P/A	SM 9221 B	
101.020	003	E. coli P/A	SM 9221 B,F	
101.020	004	Total Coliform (Enumeration)	SM 9221 B,C	
101.020	005	Fecal Coliform (Enumeration)	SM 9221 B,E	
101.050	001	Total Coliform P/A	SM 9223 B Colilert	
101.050	002	E. coli P/A	SM 9223 B Colilert	
101.050	003	Total Coliform (Enumeration)	SM 9223 B Colilert	
101.050	004	E. coli (Enumeration)	SM 9223 B Colilert	
101.130	001	Total Coliform P/A	EPA 1604 P/A	
101.130	002	E. coli P/A	EPA 1604 P/A	
101.130	003	Total Coliform (Enumeration)	EPA 1604 Enumeration	
101.130	004	E. coli (Enumeration)	EPA 1604 Enumeration	
101.160	001	Enterococci	EPA 1600	
101.170	001	Enterococci	Enterolert	
101.190	001	Coliphage P/A	EPA 1601	
101.200	001	Coliphage P/A	EPA 1602	
Field of	Testing	: 102 - Inorganic Chemistry of Drinking W	ater	
102.095	001	Turbidity	SM 2130 B-2001	
102.100	001	Alkalinity	SM 2320 B-1997	
102.130	001	Specific Conductance	SM 2510 B-1997	
102.140	001	Residue, Filterable TDS	SM 2540 C-1997	
102.203	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000	
102.232	001	Nitrite (as N)	SM 4500-NO3- E-2000	
102.232	002	Nitrate (as N)	SM 4500-NO3- E-2000	
Field of	Testing	: 107 - Microbiological Methods for Non-P	otable Water and Sewage Sludge	
107.001	001	Total Coliform (Enumeration)	SM 9221 B,C-2006	
107.001	002	Fecal Coliform (Enumeration)	SM 9221 C,E-2006	
107.001	003	E. coli (Enumeration)	SM 9221 C,F-2006	
107.005	001	E. coli (Enumeration)	SM 9223 B-2004	
107.009	001	Enterococci	SM 9230 C-2007	
107.017	001	Enterococci	Enterolert	
107.019	001	Enterococci	EPA 1600	

As of 1/14/2020, this list supersedes all previous lists for this certificate number. Customers: Please verify the current accreditation standing with the State.

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Cel Analytical, Inc.

Certificate No.2647Expiration Date/28/2021

107.023	001	Fecal Coliform (Enumeration)	EPA 1680			
107.025	001	Fecal Coliform (Enumeration)	EPA 1681			
Field of 1	Field of Testing: 108 - Inorganic Constituents in Non-Potable Water					
108.063	001	Alkalinity	SM 2320 B-2011			
108.069	001	Specific Conductance	SM 2510 B-2011			
108.071	001	Residue, Total	SM 2540 B-2011			
108.073	001	Residue, Filterable TDS	SM 2540 C-2011			
108.075	001	Residue, Non-filterable TSS	SM 2540 D-2011			
108.137	001	Hydrogen Ion (pH)	SM 4500-H+ B-2011			
108.157	002	Nitrite (as N)	SM 4500-NO3 E-2011			
108.173	001	Oxygen, Dissolved	SM 4500-O G-2011			
108.175	001	Phosphate,Ortho (as P)	SM 4500-P E-2011			
108.207	001	Biochemical Oxygen Demand	SM 5210 B-2011			
108.207	002	Carbonaceous BOD	SM 5210 B-2011			
108.325	001	Chemical Oxygen Demand	Hach 8000			
108.327	001	Nitrite (as N)	Hach 8507			
Field of 1	Testing	: 126 - Microbiological Methods for Ambie	nt Water			
126.003	003	E. coli (Enumeration)	SM 9221 C,F-2006			
126.007	001	E. coli (Enumeration)	SM 9223 B-2004			
126.011	001	Enterococci	SM 9230 C-2007			
126.015	001	E. coli (Enumeration)	Colilert			
126.019	001	Enterococci	Enterolert			
126.027	001	Enterococci	EPA 1600			
126.031	001	E. coli (Enumeration)	EPA 1604 Enumeration			
Field of 1	Testing	: 129 - Parasites in Potable Water				
129.030	001	Cryptosporidium and Giardia	EPA 1623.1			



CALIFORNIA STATE



ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

California Laboratory Services

3249 Fitzgerald Road

Rancho Cordova, CA 95742

Scope of the certificate is limited to the "Fields of Testing" which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: 1233

Expiration Date: 6/30/2022

Effective Date: 7/1/2020

subject to forfeiture or revocation

Sacramento, California

Christine Sotelo, Chief Environmental Laboratory Accreditation Program

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CALIFORNIA STATE ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM Accredited Fields of Testing



California Laboratory Services

3249 Fitzgerald Road Rancho Cordova, CA 95742 Phone: 9166387301 Certificate No. 1233 Expiration Date 6/30/2022

Field of Testing: 101 - Microbiology of Drinking Water						
101.010	001	Heterotrophic Bacteria	SM 9215 B			
101.020	001	Total Coliform P/A	SM 9221 B			
101.020	002	Fecal Coliform P/A	SM 9221 B,E			
101.020	003	E. coli P/A	SM 9221 B,F			
101.020	004	Total Coliform (Enumeration)	SM 9221 B,C			
101.020	005	Fecal Coliform (Enumeration)	SM 9221 B,E			
101.020	006	E. coli (Enumeration)	SM 9221 B,F			
101.050	001	Total Coliform P/A	SM 9223 B Colilert			
101.050	002	E. coli P/A	SM 9223 B Colilert			
101.050	003	Total Coliform (Enumeration)	SM 9223 B Colilert			
101.050	004	E. coli (Enumeration)	SM 9223 B Colilert			
101.050	005	Total Coliform P/A	SM 9223 B Colilert 18			
101.050	006	E. coli P/A	SM 9223 B Colilert 18			
101.050	007	Total Coliform (Enumeration)	SM 9223 B Colilert 18			
101.050	008	E. coli (Enumeration)	SM 9223 B Colilert 18			
Field of	Testing	: 102 - Inorganic Chemistry of Drinking Water				
102.020	001	Turbidity	EPA 180.1			
102.026	001	Calcium	EPA 200.7			
102.026	002	Magnesium	EPA 200.7			
102.026	003	Potassium	EPA 200.7			
102.026	004	Silica	EPA 200.7			
102.026	005	Sodium	EPA 200.7			
102.026	006	Hardness (Calculation)	EPA 200.7			
102.030	001	Bromide	EPA 300.0			
102.030	002	Chlorate	EPA 300.0			
102.030	003	Chloride	EPA 300.0			
102.030	004	Chlorite	EPA 300.0			
102.030	005	Fluoride	EPA 300.0			
102.030	006	Nitrate (as N)	EPA 300.0			
102.030	007	Nitrite (as N)	EPA 300.0			
102.030	800	Phosphate,Ortho (as P)	EPA 300.0			
102.030	009	Sulfate (as SO4)	EPA 300.0			
102.045	001	Perchlorate	EPA 314.0			

 Certificate No.:
 1233

 Expiration Date:
 6/30/2022

102.095	001	Turbidity	SM 2130 B-2001
102.100	001	Alkalinity	SM 2320 B-1997
102.120	001	Hardness (Calculation)	SM 2340 B-1997
102.130	001	Specific Conductance	SM 2510 B-1997
102.140	001	Residue, Filterable TDS	SM 2540 C-1997
102.175	001	Chlorine, Free	SM 4500-CI G-2000
102.175	002	Chlorine, Total Residual	SM 4500-CI G-2000
102.180	001	Chlorine Dioxide	SM 4500-CIO2 D-2000
102.190	001	Cyanide, Total	SM 4500-CN E-1999
102.192	001	Cyanide, Amenable	SM 4500-CN G-1999
102.203	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000
102.232	001	Nitrite (as N)	SM 4500-NO3- E-2000
102.232	002	Nitrate (as N)	SM 4500-NO3- E-2000
102.240	001	Phosphate,Ortho (as P)	SM 4500-P E-1999
102.260	001	Organic Carbon-Total (TOC)	SM 5310 B-2000
102.261	001	Dissolved Organic Carbon (DOC)	SM 5310 B-2000
102.270	001	Surfactants	SM 5540 C-2000
102.280	001	UV254	SM 5910 B-2011
Field of	Testing	: 103 - Toxic Chemical Elements of Drinking Water	
103.130	001	Aluminum	EPA 200.7
103.130	003	Barium	EPA 200.7
103.130	004	Beryllium	EPA 200.7
103.130 103.130	004 005	Beryllium Cadmium	EPA 200.7 EPA 200.7
103.130 103.130 103.130	004 005 007	Beryllium Cadmium Chromium	EPA 200.7 EPA 200.7 EPA 200.7
103.130 103.130 103.130 103.130	004 005 007 008	Beryllium Cadmium Chromium Copper	EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7
103.130 103.130 103.130 103.130 103.130	004 005 007 008 009	Beryllium Cadmium Chromium Copper Iron	EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7
103.130 103.130 103.130 103.130 103.130 103.130 103.130	004 005 007 008 009 011	Beryllium Cadmium Chromium Copper Iron Manganese	EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7
103.130 103.130 103.130 103.130 103.130 103.130 103.130	004 005 007 008 009 011 012	Beryllium Cadmium Chromium Copper Iron Manganese Nickel	EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7
103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130	004 005 007 008 009 011 012 015	Beryllium Cadmium Chromium Copper Iron Manganese Nickel Silver	EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7
103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130	004 005 007 008 009 011 012 015 017	Beryllium Cadmium Chromium Copper Iron Manganese Nickel Silver Zinc	EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7
103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130	004 005 007 008 009 011 012 015 017 018	Beryllium Cadmium Chromium Copper Iron Manganese Nickel Silver Zinc Boron	EPA 200.7 EPA 200.7
103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130	004 005 007 008 009 011 012 015 017 018 001	Beryllium Cadmium Chromium Copper Iron Manganese Nickel Silver Zinc Boron Aluminum	EPA 200.7 EPA 200.7
103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.140	004 005 007 008 009 011 012 015 017 018 001 002	Beryllium Cadmium Chromium Copper Iron Manganese Nickel Silver Zinc Boron Aluminum Antimony	EPA 200.7 EPA 200.8
103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.140 103.140	004 005 007 008 011 012 015 017 018 001 001 002 003	Beryllium Cadmium Chromium Copper Iron Manganese Nickel Silver Zinc Boron Aluminum Antimony Arsenic	EPA 200.7 EPA 200.8 EPA 200.8
103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.140 103.140 103.140	004 005 007 008 009 011 012 015 017 018 001 001 002 003 004	Beryllium Cadmium Chromium Copper Iron Manganese Nickel Silver Zinc Boron Aluminum Antimony Arsenic Barium	EPA 200.7 EPA 200.8 EPA 200.8
103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.140 103.140 103.140 103.140	004 005 007 008 009 011 012 015 017 018 001 002 002 003 004 005	Beryllium Cadmium Chromium Copper Iron Manganese Nickel Silver Zinc Boron Aluminum Antimony Arsenic Barium Beryllium	EPA 200.7 EPA 200.8 EPA 200.8 EPA 200.8 EPA 200.8
103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.140 103.140 103.140 103.140 103.140	004 005 007 008 009 011 012 015 017 018 001 001 002 003 004 005 006	Beryllium Cadmium Chromium Copper Iron Manganese Nickel Silver Zinc Boron Aluminum Antimony Arsenic Barium Beryllium Cadmium	EPA 200.7 EPA 200.8 EPA 200.8 EPA 200.8 EPA 200.8 EPA 200.8
103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.140 103.140 103.140 103.140 103.140	004 005 007 008 009 011 012 015 017 018 001 002 003 004 005 006 007	Beryllium Cadmium Chromium Copper Iron Manganese Nickel Silver Zinc Boron Aluminum Antimony Arsenic Barium Beryllium Cadmium Cadmium	EPA 200.7 EPA 200.8 EPA 200.8 EPA 200.8 EPA 200.8 EPA 200.8
103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.140 103.140 103.140 103.140 103.140 103.140	004 005 007 008 011 012 015 017 018 001 001 002 003 004 005 006 007 008	Beryllium Cadmium Chromium Copper Iron Manganese Nickel Silver Zinc Boron Aluminum Antimony Arsenic Barium Beryllium Cadmium Chromium Copper	EPA 200.7 EPA 200.8 EPA 200.8 EPA 200.8 EPA 200.8 EPA 200.8 EPA 200.8
103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.140 103.140 103.140 103.140 103.140 103.140	004 005 007 008 009 011 012 015 017 018 001 002 003 004 005 004 005 006 007 008 009	Beryllium Cadmium Chromium Copper Iron Manganese Nickel Silver Zinc Boron Aluminum Antimony Arsenic Barium Cadmium Cadmium Lead	EPA 200.7 EPA 200.8
103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.130 103.140 103.140 103.140 103.140 103.140 103.140 103.140 103.140 103.140 103.140 103.140	004 005 007 008 011 012 015 017 018 001 002 003 004 005 004 005 006 007 008 009 009 009	Beryllium Cadmium Chromium Copper Iron Manganese Nickel Silver Zinc Boron Aluminum Antimony Arsenic Barium Cadmium Cadmium Cadmium Cadmium Lead Manganese	EPA 200.7 EPA 200.8 EPA 200.8

103.140	012	Nickel	EPA 200.8
103.140	013	Selenium	EPA 200.8
103.140	014	Silver	EPA 200.8
103.140	015	Thallium	EPA 200.8
103.140	016	Zinc	EPA 200.8
103.140	017	Boron	EPA 200.8
103.140	018	Vanadium	EPA 200.8
103.140	019	Strontium	EPA 200.8
103.160	001	Mercury	EPA 245.1
103.310	001	Chromium (VI)	EPA 218.6
Field of	Testing	: 104 - Volatile Organic Chemistry of Drinking Water	
104.030	001	1,2-Dibromoethane (EDB, Ethylene Dibromide)	EPA 504.1
104.030	002	1,2-Dibromo-3-chloropropane (DBCP)	EPA 504.1
104.035	001	1,2,3-Trichloropropane (TCP)	SRL 524M-TCP
104.040	000	Volatile Organic Compounds	EPA 524.2
Field of	Testing	: 105 - Semi-volatile Organic Chemistry of Drinking Water	
105.030	000	N-, P- Pesticides	EPA 507
105.035	000	Organochlorine Pesticides and PCBs	EPA 508
105.090	800	Di(2-ethylhexyl) Adipate	EPA 525.2
105.090	009	Di(2-ethylhexyl) Phthalate	EPA 525.2
105.160	001	Benzo(a)pyrene	EPA 550
105.160 Field of	001 Testing	Benzo(a)pyrene : 107 - Microbiological Methods for Non-Potable Water an	EPA 550 d Sewage Sludge
105.160 Field of 107.001	001 Testing 001	Benzo(a)pyrene : 107 - Microbiological Methods for Non-Potable Water an Total Coliform (Enumeration)	EPA 550 d Sewage Sludge SM 9221 B,C-2006
105.160 Field of 107.001 107.001	001 Testing 001 002	Benzo(a)pyrene : 107 - Microbiological Methods for Non-Potable Water an Total Coliform (Enumeration) Fecal Coliform (Enumeration)	EPA 550 d Sewage Sludge SM 9221 B,C-2006 SM 9221 C,E-2006
105.160 Field of 107.001 107.001 107.001	001 Testing 001 002 003	Benzo(a)pyrene : 107 - Microbiological Methods for Non-Potable Water an Total Coliform (Enumeration) Fecal Coliform (Enumeration) E. coli (Enumeration)	EPA 550 d Sewage Sludge SM 9221 B,C-2006 SM 9221 C,E-2006 SM 9221 C,F-2006
105.160 Field of 107.001 107.001 107.001 107.005	001 Testing 001 002 003 001	Benzo(a)pyrene : 107 - Microbiological Methods for Non-Potable Water an Total Coliform (Enumeration) Fecal Coliform (Enumeration) E. coli (Enumeration) E. coli (Enumeration)	EPA 550 d Sewage Sludge SM 9221 B,C-2006 SM 9221 C,F-2006 SM 9221 C,F-2006 SM 9223 B-2004
105.160 Field of 7 107.001 107.001 107.001 107.005 107.007	001 Testing 001 002 003 001 001	Benzo(a)pyrene : 107 - Microbiological Methods for Non-Potable Water an Total Coliform (Enumeration) Fecal Coliform (Enumeration) E. coli (Enumeration) E. coli (Enumeration) Enterococci	EPA 550 d Sewage Sludge SM 9221 B,C-2006 SM 9221 C,E-2006 SM 9221 C,F-2006 SM 9223 B-2004 SM 9230 B-2007
105.160 Field of 107.001 107.001 107.001 107.005 107.007 107.007	001 Testing 001 002 003 001 001 001 002	Benzo(a)pyrene : 107 - Microbiological Methods for Non-Potable Water an Total Coliform (Enumeration) Fecal Coliform (Enumeration) E. coli (Enumeration) E. coli (Enumeration) Enterococci Fecal Streptococci	EPA 550 d Sewage Sludge SM 9221 B,C-2006 SM 9221 C,E-2006 SM 9221 C,F-2006 SM 9223 B-2004 SM 9230 B-2007 SM 9230 B-2007
105.160 Field of 107.001 107.001 107.001 107.005 107.007 107.007 107.015	001 Testing 001 002 003 001 001 002 002	Benzo(a)pyrene 107 - Microbiological Methods for Non-Potable Water an Total Coliform (Enumeration) Fecal Coliform (Enumeration) E. coli (Enumeration) E. coli (Enumeration) Enterococci Fecal Streptococci Fecal Coliform (Enumeration)	EPA 550 d Sewage Sludge SM 9221 B,C-2006 SM 9221 C,E-2006 SM 9221 C,F-2006 SM 9223 B-2004 SM 9230 B-2007 SM 9230 B-2007 Colilert 18
105.160 Field of 107.001 107.001 107.005 107.007 107.007 107.007 107.015 Field of	001 Testing 001 002 003 001 001 002 002 Testing	Benzo(a)pyrene	EPA 550 d Sewage Sludge SM 9221 B,C-2006 SM 9221 C,E-2006 SM 9221 C,F-2006 SM 9223 B-2004 SM 9230 B-2007 SM 9230 B-2007 Colilert 18
105.160 Field of 107.001 107.001 107.001 107.005 107.007 107.007 107.015 Field of 108.001	001 Testing 001 002 003 001 001 002 002 Testing 001	Benzo(a)pyrene 107 - Microbiological Methods for Non-Potable Water an Total Coliform (Enumeration) Fecal Coliform (Enumeration) E. coli (Enumeration) E. coli (Enumeration) Enterococci Fecal Streptococci Fecal Coliform (Enumeration) : 108 - Inorganic Constituents in Non-Potable Water Specific Conductance	EPA 550 d Sewage Sludge SM 9221 B,C-2006 SM 9221 C,E-2006 SM 9221 C,F-2006 SM 9223 B-2004 SM 9230 B-2007 SM 9230 B-2007 Colilert 18 EPA 120.1 (1982 Rev.1.0)
105.160 Field of 107.001 107.001 107.005 107.007 107.007 107.007 107.015 Field of 108.001 108.007	001 Testing 001 002 003 001 001 002 002 Testing 001 001	Benzo(a)pyrene : 107 - Microbiological Methods for Non-Potable Water an Total Coliform (Enumeration) Fecal Coliform (Enumeration) E. coli (Enumeration) E. coli (Enumeration) Enterococci Fecal Streptococci Fecal Coliform (Enumeration) : 108 - Inorganic Constituents in Non-Potable Water Specific Conductance Residue, Volatile	EPA 550 d Sewage Sludge SM 9221 B,C-2006 SM 9221 C,E-2006 SM 9221 C,F-2006 SM 9223 B-2004 SM 9230 B-2007 SM 9230 B-2007 Colilert 18 EPA 120.1 (1982 Rev.1.0) EPA 160.4 (1971)
105.160 Field of 107.001 107.001 107.005 107.007 107.007 107.015 Field of 108.001 108.007 108.009	001 Testing 001 002 003 001 001 002 002 Testing 001 001 001 001	Benzo(a)pyrene 107 - Microbiological Methods for Non-Potable Water an Total Coliform (Enumeration) Fecal Coliform (Enumeration) E. coli (Enumeration) E. coli (Enumeration) Enterococci Fecal Streptococci Fecal Streptococci Fecal Coliform (Enumeration) 108 - Inorganic Constituents in Non-Potable Water Specific Conductance Residue, Volatile Turbidity	EPA 550 d Sewage Sludge SM 9221 B,C-2006 SM 9221 C,E-2006 SM 9221 C,F-2006 SM 9223 B-2004 SM 9230 B-2007 SM 9230 B-2007 Colliert 18 EPA 120.1 (1982 Rev.1.0) EPA 160.4 (1971) EPA 180.1 (1993 Rev. 2.0)
105.160 Field of 107.001 107.001 107.005 107.007 107.007 107.015 Field of 108.001 108.007 108.009 108.013	001 Testing 001 002 003 001 001 002 002 Testing 001 001 001 001 001	Benzo(a)pyrene : 107 - Microbiological Methods for Non-Potable Water an Total Coliform (Enumeration) Fecal Coliform (Enumeration) E. coli (Enumeration) E. coli (Enumeration) Enterococci Fecal Streptococci Fecal Coliform (Enumeration) : 108 - Inorganic Constituents in Non-Potable Water Specific Conductance Residue, Volatile Turbidity Calcium	EPA 550 d Sewage Sludge SM 9221 B,C-2006 SM 9221 C,E-2006 SM 9221 C,F-2006 SM 9223 B-2004 SM 9230 B-2007 Colilert 18 EPA 120.1 (1982 Rev.1.0) EPA 180.1 (1993 Rev. 2.0) EPA 200.7 (1994 Rev. 4.4)
105.160 Field of 107.001 107.001 107.005 107.007 107.007 107.015 Field of 108.001 108.007 108.009 108.013 108.013	001 Testing 001 002 003 001 001 002 002 Testing 001 001 001 001 001 001 001	Benzo(a)pyrene : 107 - Microbiological Methods for Non-Potable Water an Total Coliform (Enumeration) Fecal Coliform (Enumeration) E. coli (Enumeration) E. coli (Enumeration) Enterococci Fecal Streptococci Fecal Coliform (Enumeration) : 108 - Inorganic Constituents in Non-Potable Water Specific Conductance Residue, Volatile Turbidity Calcium Magnesium	EPA 550 d Sewage Sludge SM 9221 B,C-2006 SM 9221 C,E-2006 SM 9221 C,F-2006 SM 9223 B-2004 SM 9230 B-2007 SM 9230 B-2007 Colliert 18 EPA 120.1 (1982 Rev.1.0) EPA 160.4 (1971) EPA 180.1 (1993 Rev. 2.0) EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
105.160 Field of 107.001 107.001 107.005 107.007 107.007 107.015 Field of 108.001 108.007 108.009 108.013 108.013 108.013	001 Testing 001 002 003 001 001 002 001 001 001 001 001	Benzo(a)pyrene :: 107 - Microbiological Methods for Non-Potable Water an Total Coliform (Enumeration) Fecal Coliform (Enumeration) E. coli (Enumeration) E. coli (Enumeration) Enterococci Fecal Coliform (Enumeration) Enterococci Fecal Streptococci Fecal Coliform (Enumeration) :: 108 - Inorganic Constituents in Non-Potable Water Specific Conductance Residue, Volatile Turbidity Calcium Magnesium Potassium	EPA 550 d Sewage Sludge SM 9221 B,C-2006 SM 9221 C,E-2006 SM 9221 C,F-2006 SM 9223 B-2004 SM 9230 B-2007 Colilert 18 EPA 120.1 (1982 Rev.1.0) EPA 160.4 (1971) EPA 180.1 (1993 Rev. 2.0) EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
105.160 Field of 107.001 107.001 107.005 107.007 107.007 107.015 Field of 108.001 108.007 108.009 108.013 108.013 108.013 108.013	001 Testing 001 002 003 001 001 002 002 Testing 001 001 001 001 001 001 001 00	Benzo(a)pyrene : 107 - Microbiological Methods for Non-Potable Water an Total Coliform (Enumeration) Fecal Coliform (Enumeration) E. coli (Enumeration) E. coli (Enumeration) E. coli (Enumeration) Enterococci Fecal Streptococci Fecal Coliform (Enumeration) : 108 - Inorganic Constituents in Non-Potable Water Specific Conductance Residue, Volatile Turbidity Calcium Magnesium Potassium Silica, Dissolved	EPA 550 d Sewage Sludge SM 9221 B,C-2006 SM 9221 C,E-2006 SM 9221 C,F-2006 SM 9223 B-2004 SM 9230 B-2007 Colliert 18 EPA 120.1 (1982 Rev.1.0) EPA 160.4 (1971) EPA 180.1 (1993 Rev. 2.0) EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
105.160 Field of 107.001 107.001 107.005 107.007 107.007 107.007 107.015 Field of 108.001 108.009 108.013 108.013 108.013 108.013 108.013	001 Testing 001 002 003 001 001 002 002 Testing 001 001 001 001 001 001 002 004 005 006	Benzo(a)pyrene : 107 - Microbiological Methods for Non-Potable Water an Total Coliform (Enumeration) Fecal Coliform (Enumeration) E. coli (Enumeration) E. coli (Enumeration) Enterococci Fecal Streptococci Fecal Coliform (Enumeration) : 108 - Inorganic Constituents in Non-Potable Water Specific Conductance Residue, Volatile Turbidity Calcium Magnesium Potassium Silica, Dissolved Sodium	EPA 550 d Sewage Sludge SM 9221 B,C-2006 SM 9221 C,E-2006 SM 9221 C,F-2006 SM 9223 B-2004 SM 9230 B-2007 Colilert 18 EPA 120.1 (1982 Rev.1.0) EPA 160.4 (1971) EPA 180.1 (1993 Rev. 2.0) EPA 200.7 (1994 Rev. 4.4)
105.160 Field of 107.001 107.001 107.005 107.007 107.007 107.007 107.015 Field of 108.001 108.007 108.009 108.013 108.013 108.013 108.013 108.013 108.015	001 Testing 001 002 003 001 001 002 002 Testing 001 001 001 001 001 002 004 005 006 001	Benzo(a)pyrene : 107 - Microbiological Methods for Non-Potable Water an Total Coliform (Enumeration) Fecal Coliform (Enumeration) E. coli (Enumeration) E. coli (Enumeration) Enterococci Fecal Streptococci Fecal Coliform (Enumeration) : 108 - Inorganic Constituents in Non-Potable Water Specific Conductance Residue, Volatile Turbidity Calcium Magnesium Potassium Silica, Dissolved Sodium Calcium	EPA 550 d Sewage Sludge SM 9221 B,C-2006 SM 9221 C,E-2006 SM 9221 C,F-2006 SM 9223 B-2004 SM 9230 B-2007 SM 9230 B-2007 Colliert 18 EPA 120.1 (1982 Rev.1.0) EPA 160.4 (1971) EPA 180.1 (1993 Rev. 2.0) EPA 200.7 (1994 Rev. 4.4)
105.160 Field of 107.001 107.001 107.005 107.007 107.007 107.007 107.015 Field of 108.001 108.009 108.013 108.013 108.013 108.013 108.013 108.015 108.015	001 Testing 001 002 003 001 001 002 002 Testing 001 001 001 001 001 001 002 004 005 006 001 002	Benzo(a)pyrene : 107 - Microbiological Methods for Non-Potable Water an Total Coliform (Enumeration) Fecal Coliform (Enumeration) E. coli (Enumeration) E. coli (Enumeration) Enterococci Fecal Streptococci Fecal Coliform (Enumeration) : 108 - Inorganic Constituents in Non-Potable Water Specific Conductance Residue, Volatile Turbidity Calcium Magnesium Potassium Silica, Dissolved Sodium Calcium Magnesium	EPA 550 d Sewage Sludge SM 9221 B,C-2006 SM 9221 C,F-2006 SM 9221 C,F-2006 SM 9223 B-2004 SM 9230 B-2007 Colilert 18 EPA 120.1 (1982 Rev.1.0) EPA 160.4 (1971) EPA 180.1 (1993 Rev. 2.0) EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 5.4)

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108.015	004	Silica, Dissolved	EPA 200.8 (1994 Rev. 5.4)
108.015	005	Sodium	EPA 200.8 (1994 Rev. 5.4)
108.017	001	Bromide	EPA 300.0 (1993 Rev. 2.1)
108.017	002	Chloride	EPA 300.0 (1993 Rev. 2.1)
108.017	003	Fluoride	EPA 300.0 (1993 Rev. 2.1)
108.017	004	Nitrate (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	005	Nitrate-Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	006	Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	007	Phosphate,Ortho (as P)	EPA 300.0 (1993 Rev. 2.1)
108.017	800	Sulfate (as SO4)	EPA 300.0 (1993 Rev. 2.1)
108.045	001	Chemical Oxygen Demand	EPA 410.4 (1993 Rev. 2.0)
108.047	001	Phenols, Total	EPA 420.1 (1978 Rev. 1.0)
108.053	002	Oil & Grease Total	EPA 1664 B
108.055	001	Color	SM 2120 B-2011
108.059	001	Turbidity	SM 2130 B-2011
108.061	001	Acidity	SM 2310 B-2011
108.063	001	Alkalinity	SM 2320 B-2011
108.069	001	Specific Conductance	SM 2510 B-2011
108.071	001	Residue, Total	SM 2540 B-2011
108.073	001	Residue, Filterable TDS	SM 2540 C-2011
108.075	001	Residue, Non-filterable TSS	SM 2540 D-2011
108.077	001	Residue, Volatile	SM 2540 E-2011
108.079	001	Residue, Settleable	SM 2540 F-2011
108.114	001	Chlorine, Total Residual	SM 4500-CI G-2011
108.114	002	Chlorine, Free	SM 4500-CI G-2011
108.117	001	Chloride	SM 4500-Chloride C-2011
108.125	001	Cyanide, Total	SM 4500-CN E-2011
108.129	001	Cyanide, Available	SM 4500-CN G-2011
108.131	001	Fluoride	SM 4500-F C-2011
108.137	001	Hydrogen Ion (pH)	SM 4500-H+ B-2011
108.140	001	Ammonia (as N)	SM 4500-NH3 D-2011
108.145	001	Ammonia (as N)	SM 4500-NH3 F-2011
108.145	002	Kjeldahl Nitrogen,Total (as N)	SM 4500-NH3 F-2011
108.157	001	Nitrate-Nitrite (as N)	SM 4500-NO3 E-2011
108.157	002	Nitrite (as N)	SM 4500-NO3 E-2011
108.173	001	Oxygen, Dissolved	SM 4500-O G-2011
108.175	001	Phosphate,Ortho (as P)	SM 4500-P E-2011
108.175	002	Phosphorus,Total	SM 4500-P E-2011
108.189	001	Sulfite (as SO3)	SM 4500-SO3 B-2011
108.203	001	Sulfide (as S)	SM 4500-S F-2011
108.207	001	Biochemical Oxygen Demand	SM 5210 B-2011
108.207	002	Carbonaceous BOD	SM 5210 B-2011

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108.215	001	Organic Carbon-Total (TOC)	SM 5310 B-2011	
108.225	001	Surfactants	SM 5540 C-2011	
Field of Testing: 109 - Metals and Trace Elements in Non-Potable Water				
109.623	001	Aluminum	EPA 200.7 (1994 Rev. 4.4)	
109.623	002	Antimony	EPA 200.7 (1994 Rev. 4.4)	
109.623	003	Arsenic	EPA 200.7 (1994 Rev. 4.4)	
109.623	004	Barium	EPA 200.7 (1994 Rev. 4.4)	
109.623	005	Beryllium	EPA 200.7 (1994 Rev. 4.4)	
109.623	006	Boron	EPA 200.7 (1994 Rev. 4.4)	
109.623	007	Cadmium	EPA 200.7 (1994 Rev. 4.4)	
109.623	800	Chromium	EPA 200.7 (1994 Rev. 4.4)	
109.623	009	Cobalt	EPA 200.7 (1994 Rev. 4.4)	
109.623	010	Copper	EPA 200.7 (1994 Rev. 4.4)	
109.623	011	Iron	EPA 200.7 (1994 Rev. 4.4)	
109.623	012	Lead	EPA 200.7 (1994 Rev. 4.4)	
109.623	013	Manganese	EPA 200.7 (1994 Rev. 4.4)	
109.623	014	Molybdenum	EPA 200.7 (1994 Rev. 4.4)	
109.623	015	Nickel	EPA 200.7 (1994 Rev. 4.4)	
109.623	016	Selenium	EPA 200.7 (1994 Rev. 4.4)	
109.623	017	Silver	EPA 200.7 (1994 Rev. 4.4)	
109.623	018	Thallium	EPA 200.7 (1994 Rev. 4.4)	
109.623	019	Tin	EPA 200.7 (1994 Rev. 4.4)	
109.623	020	Titanium	EPA 200.7 (1994 Rev. 4.4)	
109.623	021	Vanadium	EPA 200.7 (1994 Rev. 4.4)	
109.623	022	Zinc	EPA 200.7 (1994 Rev. 4.4)	
109.625	001	Aluminum	EPA 200.8 (1994 Rev. 5.4)	
109.625	002	Antimony	EPA 200.8 (1994 Rev. 5.4)	
109.625	003	Arsenic	EPA 200.8 (1994 Rev. 5.4)	
109.625	004	Barium	EPA 200.8 (1994 Rev. 5.4)	
109.625	005	Beryllium	EPA 200.8 (1994 Rev. 5.4)	
109.625	006	Boron	EPA 200.8 (1994 Rev. 5.4)	
109.625	007	Cadmium	EPA 200.8 (1994 Rev. 5.4)	
109.625	800	Chromium	EPA 200.8 (1994 Rev. 5.4)	
109.625	009	Cobalt	EPA 200.8 (1994 Rev. 5.4)	
109.625	010	Copper	EPA 200.8 (1994 Rev. 5.4)	
109.625	012	Iron	EPA 200.8 (1994 Rev. 5.4)	
109.625	013	Lead	EPA 200.8 (1994 Rev. 5.4)	
109.625	014	Manganese	EPA 200.8 (1994 Rev. 5.4)	
109.625	015	Molybdenum	EPA 200.8 (1994 Rev. 5.4)	
109.625	016	Nickel	EPA 200.8 (1994 Rev. 5.4)	
109.625	017	Selenium	EPA 200.8 (1994 Rev. 5.4)	
109.625	018	Silver	EPA 200.8 (1994 Rev. 5.4)	

As of $\ 7/1/2020\$, this list supersedes all previous lists for this certificate number. Customers: Please verify the current accreditation standing with the State.

3.3.b

109.625	019	Thallium	EPA 200.8 (1994 Rev. 5.4)
109.625	022	Vanadium	EPA 200.8 (1994 Rev. 5.4)
109.625	023	Zinc	EPA 200.8 (1994 Rev. 5.4)
109.629	001	Chromium (VI)	EPA 218.6 (1994 Rev. 3.3)
109.635	001	Mercury	EPA 245.1 (1994 Rev. 3.0)
Field of	Testing	: 110 - Volatile Organic Constituents in Non-Potable Wate	r
110.040	001	Acetone	EPA 624.1
110.040	002	Acetonitrile	EPA 624.1
110.040	003	Acrolein	EPA 624.1
110.040	004	Acrylonitrile	EPA 624.1
110.040	005	Benzene	EPA 624.1
110.040	006	Bromodichloromethane	EPA 624.1
110.040	007	Bromoform	EPA 624.1
110.040	800	Bromomethane (Methyl Bromide)	EPA 624.1
110.040	010	Carbon Tetrachloride	EPA 624.1
110.040	011	Chlorobenzene	EPA 624.1
110.040	012	Chloroethane	EPA 624.1
110.040	013	2-Chloroethylvinyl Ether	EPA 624.1
110.040	014	Chloroform	EPA 624.1
110.040	015	Chloromethane (Methyl Chloride)	EPA 624.1
110.040	016	Dibromochloromethane	EPA 624.1
110.040	017	1,2-Dichlorobenzene	EPA 624.1
110.040	018	1,3-Dichlorobenzene	EPA 624.1
110.040	019	1,4-Dichlorobenzene	EPA 624.1
110.040	020	1,1-Dichloroethane	EPA 624.1
110.040	021	1,2-Dichloroethane	EPA 624.1
110.040	022	1,1-Dichloroethene (1,1-Dichloroethylene)	EPA 624.1
110.040	023	trans-1,2-Dichloroethene	EPA 624.1
110.040	024	1,2-Dichloropropane	EPA 624.1
110.040	025	cis-1,3-Dichloropropene	EPA 624.1
110.040	026	trans-1,3-Dichloropropene	EPA 624.1
110.040	029	Ethylbenzene	EPA 624.1
110.040	031	Methylene Chloride (Dichloromethane)	EPA 624.1
110.040	032	4-Methyl-2-pentanone (MIBK)	EPA 624.1
110.040	034	1,1,2,2-Tetrachloroethane	EPA 624.1
110.040	035	Tetrachloroethylene (Tetrachloroethene)	EPA 624.1
110.040	037	Toluene	EPA 624.1
110.040	038	1,1,1-Trichloroethane	EPA 624.1
110.040	039	1,1,2-Trichloroethane	EPA 624.1
110.040	040	Trichloroethene	EPA 624.1
110.040	041	Vinyl Chloride	EPA 624.1
110.040	042	m-Xylene	EPA 624.1

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110.040	043	o-Xylene	EPA 624.1
110.040	044	p-Xylene	EPA 624.1
110.040	045	Trichlorofluoromethane	EPA 624.1
Field of	Testing	: 111 - Semi-volatile Organic Constituents in Non-Potable	Water
111.055	001	Aldrin	EPA 608.3
111.055	002	alpha-BHC	EPA 608.3
111.055	003	beta-BHC	EPA 608.3
111.055	004	delta-BHC	EPA 608.3
111.055	005	gamma-BHC (Lindane)	EPA 608.3
111.055	006	Chlordane	EPA 608.3
111.055	007	4,4'-DDD	EPA 608.3
111.055	800	4,4'-DDE	EPA 608.3
111.055	009	4,4'-DDT	EPA 608.3
111.055	010	Dieldrin	EPA 608.3
111.055	011	Endosulfan I	EPA 608.3
111.055	012	Endosulfan II	EPA 608.3
111.055	013	Endosulfan Sulfate	EPA 608.3
111.055	014	Endrin	EPA 608.3
111.055	015	Endrin Aldehyde	EPA 608.3
111.055	016	Heptachlor	EPA 608.3
111.055	017	Heptachlor Epoxide	EPA 608.3
111.055	019	PCB-1016	EPA 608.3
111.055	020	PCB-1221	EPA 608.3
111.055	021	PCB-1232	EPA 608.3
111.055	022	PCB-1242	EPA 608.3
111.055	023	PCB-1248	EPA 608.3
111.055	024	PCB-1254	EPA 608.3
111.055	025	PCB-1260	EPA 608.3
111.055	046	Methoxychlor	EPA 608.3
111.070	001	Acenaphthene	EPA 610
111.070	002	Acenaphthylene	EPA 610
111.070	003	Anthracene	EPA 610
111.070	004	Benzo(a)anthracene	EPA 610
111.070	005	Benzo(a)pyrene	EPA 610
111.070	006	Benzo(b)fluoranthene	EPA 610
111.070	007	Benzo(g,h,i)perylene	EPA 610
111.070	008	Benzo(k)fluoranthene	EPA 610
111.070	009	Chrysene	EPA 610
111.070	010	Dibenz(a,h)anthracene	EPA 610
111.070	011	Fluoranthene	EPA 610
111.070	012	Fluorene	EPA 610
111.070	013	Indeno(1,2,3-c,d)pyrene	EPA 610

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111.070	014	Naphthalene	EPA 610
111.070	015	Phenanthrene	EPA 610
111.070	016	Pyrene	EPA 610
111.110	001	Azinphos Methyl	EPA 614
111.110	002	Demeton-O	EPA 614
111.110	003	Demeton-S	EPA 614
111.110	004	Diazinon	EPA 614
111.110	005	Disulfoton	EPA 614
111.110	007	Malathion	EPA 614
111.110	800	Parathion Ethyl	EPA 614
111.110	009	Parathion Methyl	EPA 614
111.120	001	2,4-D	EPA 615
111.120	002	2,4-DB	EPA 615
111.120	003	Dicamba	EPA 615
111.120	004	Dichlorprop	EPA 615
111.120	005	Dinoseb	EPA 615
111.120	006	MCPA	EPA 615
111.120	007	МСРР	EPA 615
111.120	008	2,4,5-T	EPA 615
111.120	009	2,4,5-TP (Silvex)	EPA 615
111.140	001	Ametryn	EPA 619
111.140	002	Atraton	EPA 619
111.140	003	Atrazine	EPA 619
111.140	004	Prometon	EPA 619
111.140	005	Prometryn	EPA 619
111.140	006	Propazine	EPA 619
111.140	007	Secbumeton	EPA 619
111.140	800	Simazine	EPA 619
111.140	009	Terbuthylazine	EPA 619
111.160	001	Acenaphthene	EPA 625.1
111.160	002	Acenaphthylene	EPA 625.1
111.160	003	Anthracene	EPA 625.1
111.160	004	Benzidine	EPA 625.1
111.160	005	Benzo(a)anthracene	EPA 625.1
111.160	006	Benzo(a)pyrene	EPA 625.1
111.160	007	Benzo(b)fluoranthene	EPA 625.1
111.160	800	Benzo(g,h,i)perylene	EPA 625.1
111.160	009	Benzo(k)fluoranthene	EPA 625.1
111.160	010	Bis(2-chloroethoxy) Methane	EPA 625.1
111.160	011	Bis(2-chloroethyl) Ether	EPA 625.1
111.160	012	Bis(2-chloroisopropyl) Ether	EPA 625.1
111.160	013	Bis(2-ethylhexyl)phthalate	EPA 625.1

111.160	014	4-Bromophenyl Phenyl Ether	EPA 625.1	
111.160	015	Butyl Benzyl Phthalate	EPA 625.1	
111.160	016	2-Chloronaphthalene	EPA 625.1	
111.160	017	4-Chlorophenyl Phenyl Ether	EPA 625.1	
111.160	018	Chrysene	EPA 625.1	
111.160	019	Dibenz(a,h)anthracene	EPA 625.1	
111.160	020	3,3'-Dichlorobenzidine	EPA 625.1	
111.160	021	Diethyl Phthalate	EPA 625.1	
111.160	022	Dimethyl Phthalate	EPA 625.1	
111.160	023	Di-n-butyl Phthalate	EPA 625.1	
111.160	024	2,4-Dinitrotoluene	EPA 625.1	
111.160	025	2,6-Dinitrotoluene	EPA 625.1	
111.160	026	Di-n-octyl Phthalate	EPA 625.1	
111.160	027	Fluoranthene	EPA 625.1	
111.160	028	Fluorene	EPA 625.1	
111.160	029	Hexachlorobenzene	EPA 625.1	
111.160	030	Hexachlorobutadiene	EPA 625.1	
111.160	031	Hexachloroethane	EPA 625.1	
111.160	032	Indeno(1,2,3-c,d)pyrene	EPA 625.1	
111.160	033	Isophorone	EPA 625.1	
111.160	034	Naphthalene	EPA 625.1	
111.160	035	Nitrobenzene	EPA 625.1	
111.160	036	N-nitrosodi-n-propylamine	EPA 625.1	
111.160	037	Phenanthrene	EPA 625.1	
111.160	038	Pyrene	EPA 625.1	
111.160	039	1,2,4-Trichlorobenzene	EPA 625.1	
111.160	040	4-Chloro-3-methylphenol	EPA 625.1	
111.160	041	2-Chlorophenol	EPA 625.1	
111.160	042	2,4-Dichlorophenol	EPA 625.1	
111.160	043	2,4-Dimethylphenol	EPA 625.1	
111.160	044	2,4-Dinitrophenol	EPA 625.1	
111.160	045	2-Methyl-4,6-dinitrophenol	EPA 625.1	
111.160	046	2-Nitrophenol	EPA 625.1	
111.160	047	4-Nitrophenol	EPA 625.1	
111.160	048	Pentachlorophenol	EPA 625.1	
1 <u>11.160</u>	049	Phenol	EPA 625.1	
111.160	050	2,4,6-Trichlorophenol	EPA 625.1	
1 <u>11.160</u>	098	Hexachlorocyclopentadiene	EPA 625.1	
111.160	108	N-nitrosodimethylamine	EPA 625.1	
111.160	110	N-nitrosodiphenylamine	EPA 625.1	
Field of Testing: 114 - Inorganic Chemistry of Hazardous Waste				
114.010	001	Antimony	EPA 6010 B	

114.010 0	02 Arsenic	EPA 6010 B
114.010 0	03 Barium	EPA 6010 B
114.010 0	04 Beryllium	EPA 6010 B
114.010 0	05 Cadmium	EPA 6010 B
114.010 0	06 Chromium	EPA 6010 B
114.010 0	07 Cobalt	EPA 6010 B
114.010 0	08 Copper	EPA 6010 B
114.010 0	09 Lead	EPA 6010 B
114.010 0	10 Molybdenum	EPA 6010 B
114.010 0	11 Nickel	EPA 6010 B
114.010 0	12 Selenium	EPA 6010 B
114.010 0	13 Silver	EPA 6010 B
114.010 0	14 Thallium	EPA 6010 B
114.010 0	15 Vanadium	EPA 6010 B
114.010 0	16 Zinc	EPA 6010 B
114.020 0	01 Antimony	EPA 6020
114.020 0	02 Arsenic	EPA 6020
114.020 0	03 Barium	EPA 6020
114.020 0	04 Beryllium	EPA 6020
114.020 0	05 Cadmium	EPA 6020
114.020 0	06 Chromium	EPA 6020
114.020 0	07 Cobalt	EPA 6020
114.020 0	08 Copper	EPA 6020
114.020 0	09 Lead	EPA 6020
114.020 0	10 Molybdenum	EPA 6020
114.020 0	11 Nickel	EPA 6020
114.020 0	12 Selenium	EPA 6020
114.020 0	13 Silver	EPA 6020
114.020 0	14 Thallium	EPA 6020
114.020 0	15 Vanadium	EPA 6020
114.020 0	16 Zinc	EPA 6020
114.025 0	01 Mercury	EPA 6020 A
114.106 0	01 Chromium (VI)	EPA 7199
114.140 0	01 Mercury	EPA 7470 A
114.141 0	01 Mercury	EPA 7471 A
114.222 0	01 Cyanide, Total	EPA 9014
114.240 0	01 Corrosivity - pH Determination	EPA 9040 B
114.241 0	01 Corrosivity - pH Determination	EPA 9045 C
Field of Tes	sting: 115 - Extraction Test of Hazardous Waste	
115.020 0	01 Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311 (TCLP)
115.030 0	01 Waste Extraction Test (WET)	CCR Chapter11, Article 5, Appendix II
Field of Tes	sting: 116 - Volatile Organic Chemistry of Hazardous Waste	

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116.020	030	Nonhalogenated Volatiles	EPA 8015 B	
116.020	031	Ethanol and Methanol	EPA 8015 B	
116.030	001	Gasoline-range Organics	EPA 8015 B	
116.080	000	Volatile Organic Compounds	EPA 8260 B	
116.080	120	Oxygenates	EPA 8260 B	
116.100	001	Total Petroleum Hydrocarbons - Gasoline (GRO)	LUFT GC/MS	
116.110	001	Total Petroleum Hydrocarbons - Gasoline (GRO)	LUFT	
Field of	Testing	: 117 - Semi-volatile Organic Chemistry of Hazardous Wa	ste	
117.010	001	Diesel-range Total Petroleum Hydrocarbons	EPA 8015 B	
117.016	001	Diesel-range Total Petroleum Hydrocarbons	LUFT	
117.110	000	Extractable Organics	EPA 8270 C	
117.140	000	Polynuclear Aromatic Hydrocarbons	EPA 8310	
117.150	000	Carbonyl Compounds	EPA 8315 A	
117.210	000	Organochlorine Pesticides	EPA 8081 A	
117.220	000	PCBs	EPA 8082	
117.240	000	Organophosphorus Pesticides	EPA 8141 A	
117.250	000	Chlorinated Herbicides	EPA 8151 A	
Field of Testing: 120 - Physical Properties of Hazardous Waste				
120.010	001	Ignitability	EPA 1010	
120.040	001	Reactive Cyanide	Section 7.3 SW-846	
120.050	001	Reactive Sulfide	Section 7.3 SW-846	
120.070	001	Corrosivity - pH Determination	EPA 9040 B	
120.080	001	Corrosivity - pH Determination	EPA 9045 C	



Interim



CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

Davi Laboratories, Environmental Associates

730 Alfred Nobel Drive

Hercules, CA 94547

Scope of the certificate is limited to the "Fields of Testing" which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: 1438

Sacramento, California

Expiration Date: 1/31/2020

Effective Date: 2/1/2019

subject to forfeiture or revocation

vnistin

Christine Sotelo, Chief Environmental Laboratory Accreditation Program



CALIFORNIA STATE ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM Accredited Fields of Testing



Weck Laboratories, Inc.

14859 East Clark Avenue City of Industry, CA 91745 Phone: 6263362139 Certificate No. 1132 Expiration Date 3/31/2022

Field of Testing: 101 - Microbiology of Drinking Water				
101.010	001	Heterotrophic Bacteria	SM 9215 B	
101.020	004	Total Coliform (Enumeration)	SM 9221 B,C	
101.020	005	Fecal Coliform (Enumeration)	SM 9221 B,E	
101.020	006	E. coli (Enumeration)	SM 9221 B,F	
101.050	001	Total Coliform P/A	SM 9223 B Colilert	
101.050	002	E. coli P/A	SM 9223 B Colilert	
101.050	003	Total Coliform (Enumeration)	SM 9223 B Colilert	
101.050	004	E. coli (Enumeration)	SM 9223 B Colilert	
101.050	005	Total Coliform P/A	SM 9223 B Colilert 18	
101.050	006	E. coli P/A	SM 9223 B Colilert 18	
101.050	007	Total Coliform (Enumeration)	SM 9223 B Colilert 18	
101.050	008	E. coli (Enumeration)	SM 9223 B Colilert 18	
101.050	009	Total Coliform P/A	SM 9223 B Colisure	
101.050	010	E. coli P/A	SM 9223 B Colisure	
101.140	001	Enterococci	SM 9230 B	
101.170	001	Enterococci	Enterolert	
Field of		400 Learne de Oleande terre (Debelie e Mater		
Field OI	Testing	: 102 - Inorganic Chemistry of Drinking Water		
102.020	001	Turbidity	EPA 180.1	
102.020 102.026	001 001	Turbidity Calcium	EPA 180.1 EPA 200.7	
102.020 102.026 102.026	001 001 002	Turbidity Calcium Magnesium	EPA 180.1 EPA 200.7 EPA 200.7	
102.020 102.026 102.026 102.026	001 001 002 003	102 - Inorganic Chemistry of Drinking Water Turbidity Calcium Magnesium Potassium	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7	
102.020 102.026 102.026 102.026 102.026	001 001 002 003 004	102 - Inorganic Chemistry of Drinking Water Turbidity Calcium Magnesium Potassium Silica	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7	
102.020 102.026 102.026 102.026 102.026 102.026	001 001 002 003 004 005	102 - Inorganic Chemistry of Drinking Water Turbidity Calcium Magnesium Potassium Silica Sodium	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7	
102.020 102.026 102.026 102.026 102.026 102.026 102.026	OO1 001 002 003 004 005 006	102 - Inorganic Chemistry of Drinking Water Turbidity Calcium Magnesium Potassium Silica Sodium Hardness (Calculation)	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7	
102.020 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.030	OO1 001 002 003 004 005 006 001	102 - Inorganic Chemistry of Drinking Water Turbidity Calcium Magnesium Potassium Silica Sodium Hardness (Calculation) Bromide	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 300.0	
102.020 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026	OO1 001 002 003 004 005 006 001 003	102 - Inorganic Chemistry of Drinking Water Turbidity Calcium Magnesium Potassium Silica Sodium Hardness (Calculation) Bromide Chloride	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 300.0 EPA 300.0	
102.020 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.030 102.030	OO1 001 001 002 003 004 005 006 001 003 005 006 001 003	: 102 - Inorganic Chemistry of Drinking Water Turbidity Calcium Magnesium Potassium Silica Sodium Hardness (Calculation) Bromide Chloride Fluoride	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 300.0 EPA 300.0 EPA 300.0	
102.020 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.030 102.030 102.030 102.030	OO1 001 002 003 004 005 006 001 003 005 006 001 003 005 006 001 003 005 006	 102 - Inorganic Chemistry of Drinking Water Turbidity Calcium Magnesium Potassium Sodium Sodium Hardness (Calculation) Bromide Chloride Fluoride Nitrate (as N) 	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0	
102.020 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.030 102.030 102.030 102.030 102.030 102.030	OO1 001 001 002 003 004 005 006 001 003 005 006 001 003 006 001 003 005 006 007	 102 - Inorganic Chemistry of Drinking Water Turbidity Calcium Magnesium Potassium Solica Sodium Hardness (Calculation) Bromide Chloride Fluoride Nitrate (as N) Nitrite (as N) 	EPA 180.1 EPA 200.7 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0	
102.020 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.030 102.030 102.030 102.030 102.030 102.030	OO1 001 001 002 003 004 005 006 001 003 004 005 006 001 003 005 006 007 009	 102 - Inorganic Chemistry of Drinking Water Turbidity Calcium Magnesium Potassium Sodium Sodium Hardness (Calculation) Bromide Chloride Fluoride Fluoride Nitrate (as N) Nitrite (as SO4) 	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 300.0 EPA 300.0	
102.020 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.030 102.030 102.030 102.030 102.030 102.030 102.030 102.030 102.030 102.030	Desting 001 001 002 003 004 005 006 001 003 004 005 006 001 003 006 007 009 001	 102 - Inorganic Chemistry of Drinking Water Turbidity Calcium Magnesium Potassium Solica Sodium Hardness (Calculation) Bromide Chloride Fluoride Nitrate (as N) Nitrite (as SO4) Bromide 	EPA 180.1 EPA 200.7 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.1	
102.020 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.026 102.030 102.030 102.030 102.030 102.030 102.030 102.030 102.030 102.040	Desting 001 001 002 003 004 005 006 001 003 004 005 006 001 003 005 006 007 009 001 002	 102 - Inorganic Chemistry of Drinking Water Turbidity Calcium Magnesium Potassium Sodium Sodium Hardness (Calculation) Bromide Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate (as SO4) Bromide Chlorite 	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.1	

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102.040	004	Bromate	EPA 300.1
102.045	001	Perchlorate	EPA 314.0
102.047	001	Perchlorate	EPA 331.0
102.048	001	Perchlorate	EPA 332.0
102.050	001	Cyanide, Total	EPA 335.4
102.060	001	Nitrate (as N) (Calculation)	EPA 353.2
102.061	001	Nitrite (as N)	EPA 353.2
102.070	001	Phosphate,Ortho (as P)	EPA 365.1
102.086	001	Dissolved Organic Carbon (DOC)	EPA 415.3 Revision 1.2
102.086	002	Specific UV Absorbance SUVA	EPA 415.3 Revision 1.2
102.086	003	Organic Carbon-Total (TOC)	EPA 415.3 Revision 1.2
102.086	004	UV254	EPA 415.3 Revision 1.2
102.090	001	Bromate	EPA 557
102.100	001	Alkalinity	SM 2320 B-1997
102.130	001	Specific Conductance	SM 2510 B-1997
102.140	001	Residue, Filterable TDS	SM 2540 C-1997
102.175	001	Chlorine, Free	SM 4500-CI G-2000
102.175	002	Chlorine, Total Residual	SM 4500-CI G-2000
102.180	001	Chlorine Dioxide	SM 4500-CIO2 D-2000
102.203	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000
102.260	001	Organic Carbon-Total (TOC)	SM 5310 B-2000
102.261	001	Dissolved Organic Carbon (DOC)	SM 5310 B-2000
102.270	001	Surfactants	SM 5540 C-2000
102.280	001	UV254	SM 5910 B-2011
102.570	001	Cyanide, Free	OIA-1677, DW
Field of	Testing	: 103 - Toxic Chemical Elements of Drinking Water	
103.130	001	Aluminum	EPA 200.7
103.130	003	Barium	EPA 200.7
103.130	007	Chromium	EPA 200.7
103.130	800	Copper	EPA 200.7
103.130	009	Iron	EPA 200.7
103.130	011	Manganese	EPA 200.7
103.130	012	Nickel	EPA 200.7
103.130	015	Silver	EPA 200.7
103.130	017	Zinc	EPA 200.7
103.130	018	Boron	EPA 200.7
103.140	001	Aluminum	EPA 200.8
103.140	002	Antimony	EPA 200.8
103.140	003	Arsenic	EPA 200.8
103.140	004	Barium	EPA 200.8
103.140	005	Beryllium	EPA 200.8
		Codmium	EPA 200 8
103.140	007	Chromium	EPA 200.8
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103.140	800	Copper	EPA 200.8
103.140	009	Lead	EPA 200.8
103.140	010	Manganese	EPA 200.8
103.140	011	Mercury	EPA 200.8
103.140	012	Nickel	EPA 200.8
103.140	013	Selenium	EPA 200.8
103.140	014	Silver	EPA 200.8
103.140	015	Thallium	EPA 200.8
103.140	016	Zinc	EPA 200.8
103.140	017	Boron	EPA 200.8
103.140	018	Vanadium	EPA 200.8
103.140	019	Strontium	EPA 200.8
103.160	001	Mercury	EPA 245.1
103.310	001	Chromium (VI)	EPA 218.6
103.311	001	Chromium (VI)	EPA 218.7
Field of	Testing	: 104 - Volatile Organic Chemistry of Drinking Water	
104.030	001	1,2-Dibromoethane (EDB, Ethylene Dibromide)	EPA 504.1
104.030	002	1,2-Dibromo-3-chloropropane (DBCP)	EPA 504.1
104.035	001	1,2,3-Trichloropropane (TCP)	SRL 524M-TCP
104.040	000	Volatile Organic Compounds	EPA 524.2
104.040	001	Benzene	EPA 524.2
104.040	007	n-Butylbenzene	EPA 524.2
104.040	800	sec-Butylbenzene	EPA 524.2
104.040	009	tert-Butylbenzene	EPA 524.2
104.040	010	Carbon Tetrachloride	EPA 524.2
104.040	011	Chlorobenzene	EPA 524.2
104.040	015	2-Chlorotoluene	EPA 524.2
104.040	016	4-Chlorotoluene	EPA 524.2
104.040	019	1,3-Dichlorobenzene	EPA 524.2
104.040	020	1,2-Dichlorobenzene	EPA 524.2
104.040	021	1,4-Dichlorobenzene	EPA 524.2
104.040	022	Dichlorodifluoromethane	EPA 524.2
104.040	023	1,1-Dichloroethane	EPA 524.2
104.040	024	1,2-Dichloroethane	EPA 524.2
104.040	025	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 524.2
104.040	026	cis-1,2-Dichloroethylene (cis 1,2 Dichloroethene)	EPA 524.2
104.040	027	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 524.2
104.040	028	Dichloromethane (Methylene Chloride)	EPA 524.2
104.040	029	1,2-Dichloropropane	EPA 524.2
104.040	033	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 524.2
104.040	034	trans-1,3-Dichloropropylene (trans-1,3 Dichloroprope	EPA 524.2

104.040	035	Ethylbenzene	EPA 524.2	
104.040	037	Isopropylbenzene	EPA 524.2	
104.040	039	Naphthalene	EPA 524.2	
104.040	041	N-propylbenzene	EPA 524.2	
104.040	042	Styrene	EPA 524.2	
104.040	043	1,1,1,2-Tetrachloroethane	EPA 524.2	
104.040	044	1,1,2,2-Tetrachloroethane	EPA 524.2	
104.040	045	Tetrachloroethylene (Tetrachloroethene)	EPA 524.2	
104.040	046	Toluene	EPA 524.2	
104.040	047	1,2,3-Trichlorobenzene	EPA 524.2	
104.040	048	1,2,4-Trichlorobenzene	EPA 524.2	
104.040	049	1,1,1-Trichloroethane	EPA 524.2	
104.040	050	1,1,2-Trichloroethane	EPA 524.2	
104.040	051	Trichloroethylene (Trichloroethene)	EPA 524.2	
104.040	052	Trichlorofluoromethane	EPA 524.2	
104.040	054	1,2,4-Trimethylbenzene	EPA 524.2	
104.040	055	1,3,5-Trimethylbenzene	EPA 524.2	
104.040	056	Vinyl Chloride	EPA 524.2	
104.040	057	Xylenes, Total	EPA 524.2	
104.040	061	Carbon Disulfide	EPA 524.2	
104.040	062	Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	EPA 524.2	
104.045	000	Trihalomethanes, Total	EPA 524.2	
104.045	001	Bromodichloromethane	EPA 524.2	
104.045	002	Bromoform	EPA 524.2	
104.045	003	Chloroform	EPA 524.2	
104.045	004	Dibromochloromethane (Chlorodibromomethane)	EPA 524.2	
104.050	000	Gasoline Additives	EPA 524.2	
104.050	002	Methyl tert-butyl Ether (MTBE)	EPA 524.2	
104.050	003	tert-Amyl Methyl Ether (TAME)	EPA 524.2	
104.050	004	Ethyl tert-butyl Ether (ETBE)	EPA 524.2	
104.050	005	Trichlorotrifluoroethane	EPA 524.2	
104.050	006	tert-Butyl Alcohol (TBA)	EPA 524.2	
104.055	022	1,2-Dibromo-3-chloropropane (DBCP)	EPA 524.3	
104.055	023	1,2-Dibromoethane (EDB, Ethylene Dibromide)	EPA 524.3	
104.058	000	Volatile Organic Compounds	EPA 524.4	
104.058	001	Benzene	EPA 524.4	
104.058	002	Carbon Tetrachloride	EPA 524.4	
104.058	003	Chlorobenzene	EPA 524.4	
104.058	004	1,2-Dichlorobenzene	EPA 524.4	
104.058	005	1,4-Dichlorobenzene	EPA 524.4	
104.058	006	1,2-Dichloroethane	EPA 524.4	
104.058	007	cis-1,2-Dichloroethylene (cis 1,2 Dichloroethene)	EPA 524.4	

As of 7/31/2020, this list supersedes all previous lists for this certificate number. Customers: Please verify the current accreditation standing with the State.

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104.058	800	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 524.4
104.058	009	Dichloromethane (Methylene Chloride)	EPA 524.4
104.058	010	1,2-Dichloropropane	EPA 524.4
104.058	011	Ethylbenzene	EPA 524.4
104.058	012	Styrene	EPA 524.4
104.058	013	Tetrachloroethylene (Tetrachloroethene)	EPA 524.4
104.058	014	1,1,1-Trichloroethane	EPA 524.4
104.058	015	Trichloroethylene (Trichloroethene)	EPA 524.4
104.058	016	Toluene	EPA 524.4
104.058	017	1,2,4-Trichlorobenzene	EPA 524.4
104.058	018	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 524.4
104.058	019	1,1,2-Trichloroethane	EPA 524.4
104.058	020	Vinyl Chloride	EPA 524.4
104.058	021	Xylenes, Total	EPA 524.4
104.059	000	Trihalomethanes, Total	EPA 524.4
104.059	001	Bromodichloromethane	EPA 524.4
104.059	002	Bromoform	EPA 524.4
104.059	003	Chloroform	EPA 524.4
104.059	004	Dibromochloromethane (Chlorodibromomethane)	EPA 524.4
104.061	000	Gasoline Additives	EPA 524.4
104.061	001	Di-isopropyl Ether (DIPE)	EPA 524.4
104.061	003	tert-Amyl Methyl Ether (TAME)	EPA 524.4
104.061	004	Ethyl tert-butyl Ether (ETBE)	EPA 524.4
104.061	005	Trichlorofluoromethane (Freon 11)	EPA 524.4
104.061	006	tert-Butyl Alcohol (TBA)	EPA 524.4
104.061	007	Trichlorotrifluoroethane (Freon 113)	EPA 524.4
Field of	Testing	: 105 - Semi-volatile Organic Chemistry of Drinking Water	
105.035	000	Organochlorine Pesticides and PCBs	EPA 508
105.035	001	Aldrin	EPA 508
105.035	005	Endrin	EPA 508
105.035	007	Heptachlor	EPA 508
105.035	800	Heptachlor Epoxide	EPA 508
105.035	009	Hexachlorobenzene	EPA 508
105.035	010	Lindane (HCH-gamma)	EPA 508
105.035	011	Methoxychlor	EPA 508
105.035	012	Propachlor	EPA 508
105.035	013	Chlordane	EPA 508
105.035	014	Toxaphene	EPA 508
105.035	015	PCBs as Aroclors	EPA 508
105.035	016	Aroclor 1016	EPA 508
105.035	017	Aroclor 1221	EPA 508
105.035	018	Aroclor 1232	EPA 508

105.035	019	Aroclor 1242	EPA 508
105.035	020	Aroclor 1248	EPA 508
105.035	021	Aroclor 1254	EPA 508
105.035	022	Aroclor 1260	EPA 508
105.050	000	Organochlorine Pesticides	EPA 508.1
105.050	005	Chlordane (total)	EPA 508.1
105.050	010	Endrin	EPA 508.1
105.050	011	Heptachlor	EPA 508.1
105.050	012	Heptachlor Epoxide	EPA 508.1
105.050	013	Hexachlorobenzene	EPA 508.1
105.050	014	Hexachlorocyclopentadiene	EPA 508.1
105.050	015	Lindane (HCH-gamma)	EPA 508.1
105.050	016	Methoxychlor	EPA 508.1
105.050	019	Propachlor	EPA 508.1
105.050	021	PCB-1016	EPA 508.1
105.050	022	PCB-1221	EPA 508.1
105.050	023	PCB-1232	EPA 508.1
105.050	024	PCB-1242	EPA 508.1
105.050	025	PCB-1248	EPA 508.1
105.050	026	PCB-1254	EPA 508.1
105.050	027	PCB-1260	EPA 508.1
105.050	028	PCBs as Aroclors	EPA 508.1
105.050	029	Toxaphene	EPA 508.1
105.083	000	Chlorinated Acids	EPA 515.4
105.083	001	2,4-D	EPA 515.4
105.083	002	Dinoseb	EPA 515.4
105.083	003	Pentachlorophenol	EPA 515.4
105.083	004	Picloram	EPA 515.4
105.083	005	2,4,5-TP (Silvex)	EPA 515.4
105.083	006	Dalapon	EPA 515.4
105.083	007	Bentazon	EPA 515.4
105.083	800	Dicamba	EPA 515.4
105.090	000	Semi-volatile Organic Compounds	EPA 525.2
105.090	001	Alachlor	EPA 525.2
105.090	003	Atrazine	EPA 525.2
105.090	004	Benzo(a)pyrene	EPA 525.2
105.090	005	Butachlor	EPA 525.2
105.090	007	Dieldrin	EPA 525.2
105.090	800	Di(2-ethylhexyl) Adipate	EPA 525.2
105.090	009	Di(2-ethylhexyl) Phthalate	EPA 525.2
105.090	013	Endrin	EPA 525.2
105.090	014	Heptachlor	EPA 525.2

105.090	015	Heptachlor Epoxide	EPA 525.2
105.090	016	Hexachlorobenzene	EPA 525.2
105.090	017	Hexachlorocyclopentadiene	EPA 525.2
105.090	018	Lindane (HCH-gamma)	EPA 525.2
105.090	019	Methoxychlor	EPA 525.2
105.090	022	Molinate	EPA 525.2
105.090	023	Pentachlorophenol	EPA 525.2
105.090	025	Simazine	EPA 525.2
105.090	028	Thiobencarb	EPA 525.2
105.101	000	Carbamates	EPA 531.2
105.101	001	Carbofuran	EPA 531.2
105.101	002	Oxamyl	EPA 531.2
105.101	003	Aldicarb	EPA 531.2
105.101	004	Aldicarb Sulfone	EPA 531.2
105.101	005	Aldicarb Sulfoxide	EPA 531.2
105.101	006	Carbaryl	EPA 531.2
105.101	007	3-Hydroxycarbofuran	EPA 531.2
105.101	800	Methomyl	EPA 531.2
105.106	000	Per- and Polyfluorinated Alkyl Substances (PFAS)	EPA 537.1
105.120	001	Glyphosate	EPA 547
105.140	001	Endothall	EPA 548.1
105.150	001	Diquat	EPA 549.2
105.170	031	Disinfection Byproducts	EPA 551.1
105.201	001	Haloacetic Acids (HAA5)	EPA 552.3
105.210	002	2,4-D	EPA 555
105.210	004	Dinoseb	EPA 555
105.210	005	Pentachlorophenol	EPA 555
105.210	006	Picloram	EPA 555
105.210	007	2,4,5-TP (Silvex)	EPA 555
105.210	800	Bentazon	EPA 555
105.215	001	Haloacetic Acids (HAA5)	EPA 557
105.215	002	Dalapon	EPA 557
105.230	002	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) Screenin	EPA 1613 B
Field of	Testing	: 106 - Radionuclides in Drinking Water	
106.010	001	Gross Alpha	EPA 900.0
106.010	002	Gross Beta	EPA 900.0
106.092	001	Uranium	EPA 200.8
106.270	001	Gross Alpha	SM 7110 C
106.610	001	Radon-222	SM 7500-Rn
Field of	Testing	: 107 - Microbiological Methods for Non-Potable Water an	d Sewage Sludge
107.001	001	Total Coliform (Enumeration)	SM 9221 B,C-2006
107.001	002	Fecal Coliform (Enumeration)	SM 9221 C,E-2006
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107.001	003	E. coli (Enumeration)	SM 9221 C,F-2006
107.007	002	Fecal Streptococci	SM 9230 B-2007
107.013	001	E. coli (Enumeration)	Colilert
107.015	001	E. coli (Enumeration)	Colilert 18
107.015	002	Fecal Coliform (Enumeration)	Colilert 18
107.017	001	Enterococci	Enterolert
Field of	Testing	: 108 - Inorganic Constituents in Non-Potable Water	
108.007	001	Residue, Volatile	EPA 160.4 (1971)
108.009	001	Turbidity	EPA 180.1 (1993 Rev. 2.0)
108.013	001	Calcium	EPA 200.7 (1994 Rev. 4.4)
108.013	002	Magnesium	EPA 200.7 (1994 Rev. 4.4)
108.013	003	Phosphorus,Total	EPA 200.7 (1994 Rev. 4.4)
108.013	004	Potassium	EPA 200.7 (1994 Rev. 4.4)
108.013	005	Silica, Dissolved	EPA 200.7 (1994 Rev. 4.4)
108.013	006	Sodium	EPA 200.7 (1994 Rev. 4.4)
108.015	001	Calcium	EPA 200.8 (1994 Rev. 5.4)
108.015	002	Magnesium	EPA 200.8 (1994 Rev. 5.4)
108.015	003	Potassium	EPA 200.8 (1994 Rev. 5.4)
108.015	005	Sodium	EPA 200.8 (1994 Rev. 5.4)
108.017	001	Bromide	EPA 300.0 (1993 Rev. 2.1)
108.017	002	Chloride	EPA 300.0 (1993 Rev. 2.1)
108.017	003	Fluoride	EPA 300.0 (1993 Rev. 2.1)
108.017	004	Nitrate (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	005	Nitrate-Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	006	Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	800	Sulfate (as SO4)	EPA 300.0 (1993 Rev. 2.1)
108.019	001	Bromide	EPA 300.1 (1997 Rev.1.0)
108.023	001	Cyanide, Total	EPA 335.4 (1993 Rev. 1.0)
108.025	001	Ammonia (as N)	EPA 350.1 (1993 Rev. 2.0)
108.029	001	Kjeldahl Nitrogen,Total (as N)	EPA 351.2 (1993 Rev. 2.0)
108.033	001	Nitrate-Nitrite (as N)	EPA 353.2 (1993 Rev. 2.0)
108.033	002	Nitrite (as N)	EPA 353.2 (1993 Rev. 2.0)
108.035	001	Phosphate,Ortho (as P)	EPA 365.1 (1993 Rev. 2.0)
108.035	002	Phosphorus, Total	EPA 365.1 (1993 Rev. 2.0)
108.037	001	Phosphate,Ortho (as P)	EPA 365.3 (1978)
108.037	002	Phosphorus,Total	EPA 365.3 (1978)
108.045	001	Chemical Oxygen Demand	EPA 410.4 (1993 Rev. 2.0)
108.049	001	Phenols, Total	EPA 420.4 (1993 Rev. 2.0)
108.053	002	Oil & Grease Total	EPA 1664 B
108.055	001	Color	SM 2120 B-2011
108.063	001	Alkalinity	SM 2320 B-2011
108.069	001	Specific Conductance	SM 2510 B-2011

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108.071	001	Residue, Total	SM 2540 B-2011
108.073	001	Residue, Filterable TDS	SM 2540 C-2011
108.075	001	Residue, Non-filterable TSS	SM 2540 D-2011
108.077	001	Residue, Volatile	SM 2540 E-2011
108.079	001	Residue, Settleable	SM 2540 F-2011
108.080	001	Temperature	SM 2550 B-2010
108.114	001	Chlorine, Total Residual	SM 4500-CI G-2011
108.114	002	Chlorine, Free	SM 4500-CI G-2011
108.129	001	Cyanide, Available	SM 4500-CN G-2011
108.137	001	Hydrogen Ion (pH)	SM 4500-H+ B-2011
108.173	001	Oxygen, Dissolved	SM 4500-O G-2011
108.189	001	Sulfite (as SO3)	SM 4500-SO3 B-2011
108.201	001	Sulfide (as S)	SM 4500-S D-2011
108.207	001	Biochemical Oxygen Demand	SM 5210 B-2011
108.207	002	Carbonaceous BOD	SM 5210 B-2011
108.215	001	Organic Carbon-Total (TOC)	SM 5310 B-2011
108.225	001	Surfactants	SM 5540 C-2011
108.321	001	Cyanide, Total	ASTM D7511-12
108.339	001	Cyanide, Available	OIA-1677-09
Field of	Testing	: 109 - Metals and Trace Elements in Non-Potable Water	
400.000	004	A1 1	EDA 200 7 (1004 Dev: 4.4)
109.623	001	Aluminum	EPA 200.7 (1994 Rev. 4.4)
109.623	001	Aluminum Antimony	EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
109.623 109.623 109.623	001 002 003	Aluminum Antimony Arsenic	EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
109.623 109.623 109.623 109.623	001 002 003 004	Aluminum Antimony Arsenic Barium	EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
109.623 109.623 109.623 109.623 109.623	001 002 003 004 005	Aluminum Antimony Arsenic Barium Beryllium	EPA 200.7 (1994 Rev. 4.4)
109.623 109.623 109.623 109.623 109.623 109.623	001 002 003 004 005 006	Aluminum Antimony Arsenic Barium Beryllium Boron	EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
109.623 109.623 109.623 109.623 109.623 109.623 109.623	001 002 003 004 005 006 007	Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium	EPA 200.7 (1994 Rev. 4.4)
109.623 109.623 109.623 109.623 109.623 109.623 109.623	001 002 003 004 005 006 007 008	Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Chromium	EPA 200.7 (1994 Rev. 4.4)
109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623	001 002 003 004 005 006 007 008 009	Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt	EPA 200.7 (1994 Rev. 4.4)
109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623	001 002 003 004 005 006 007 008 009 010	Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt Copper	EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623	001 002 003 004 005 006 007 008 009 010 011	Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron	EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623	001 002 003 004 005 006 007 008 009 010 011 012	Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt Cobalt Copper Iron	EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623	001 002 003 004 005 006 007 008 009 010 011 012 013	Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron Lead Manganese	EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623	001 002 003 004 005 006 007 008 009 010 011 012 013 014	Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron Lead Manganese Molybdenum	EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015	Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron Lead Manganese Molybdenum Nickel	EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016	Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron Lead Manganese Molybdenum Nickel Selenium	EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
109.623 109.623	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017	Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron Lead Manganese Molybdenum Nickel Selenium Silver	EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623 109.623	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018	Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron Lead Manganese Molybdenum Nickel Selenium Silver Thallium	EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
109.623 109.623	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019	Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron Lead Manganese Molybdenum Nickel Selenium Silver Thallium Tin	EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
109.623 109.623	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020	Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron Lead Manganese Molybdenum Nickel Selenium Silver Thallium Tin Titanium	EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)
109.623 109.623	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021	Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron Lead Manganese Molybdenum Nickel Selenium Silver Thallium Tin Titanium Vanadium	EPA 200.7 (1994 Rev. 4.4) EPA 200.7 (1994 Rev. 4.4)

As of $\ 7/31/2020$, this list supersedes all previous lists for this certificate number. Customers: Please verify the current accreditation standing with the State.

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109.625	001	Aluminum	EPA 200.8 (1994 Rev. 5.4)
109.625	002	Antimony	EPA 200.8 (1994 Rev. 5.4)
109.625	003	Arsenic	EPA 200.8 (1994 Rev. 5.4)
109.625	004	Barium	EPA 200.8 (1994 Rev. 5.4)
109.625	005	Beryllium	EPA 200.8 (1994 Rev. 5.4)
109.625	006	Boron	EPA 200.8 (1994 Rev. 5.4)
109.625	007	Cadmium	EPA 200.8 (1994 Rev. 5.4)
109.625	800	Chromium	EPA 200.8 (1994 Rev. 5.4)
109.625	009	Cobalt	EPA 200.8 (1994 Rev. 5.4)
109.625	010	Copper	EPA 200.8 (1994 Rev. 5.4)
109.625	012	Iron	EPA 200.8 (1994 Rev. 5.4)
109.625	013	Lead	EPA 200.8 (1994 Rev. 5.4)
109.625	014	Manganese	EPA 200.8 (1994 Rev. 5.4)
109.625	015	Molybdenum	EPA 200.8 (1994 Rev. 5.4)
109.625	016	Nickel	EPA 200.8 (1994 Rev. 5.4)
109.625	017	Selenium	EPA 200.8 (1994 Rev. 5.4)
109.625	018	Silver	EPA 200.8 (1994 Rev. 5.4)
109.625	019	Thallium	EPA 200.8 (1994 Rev. 5.4)
109.625	020	Tin	EPA 200.8 (1994 Rev. 5.4)
109.625	021	Titanium	EPA 200.8 (1994 Rev. 5.4)
109.625	022	Vanadium	EPA 200.8 (1994 Rev. 5.4)
109.625	023	Zinc	EPA 200.8 (1994 Rev. 5.4)
109.629	001	Chromium (VI)	EPA 218.6 (1994 Rev. 3.3)
109.635	001	Mercury	EPA 245.1 (1994 Rev. 3.0)
109.657	001	Mercury	EPA 1631 E (2002)
Field of	Testing	: 110 - Volatile Organic Constituents in Non-Potable Wate	r
110.040	001	Acetone	EPA 624.1
110.040	002	Acetonitrile	EPA 624.1
110.040	003	Acrolein	EPA 624.1
110.040	004	Acrylonitrile	EPA 624.1
110.040	005	Benzene	EPA 624.1
110.040	006	Bromodichloromethane	EPA 624.1
110.040	007	Bromoform	EPA 624.1
110.040	800	Bromomethane (Methyl Bromide)	EPA 624.1
110.040	009	tert-Butyl Alcohol (TBA)	EPA 624.1
110.040	010	Carbon Tetrachloride	EPA 624.1
110.040	011	Chlorobenzene	EPA 624.1
110.040	012	Chloroethane	EPA 624.1
110.040	013	2-Chloroethylvinyl Ether	EPA 624.1
110.040	014	Chloroform	EPA 624.1
110.040	015	Chloromethane (Methyl Chloride)	EPA 624.1
110.040	016	Dibromochloromethane (Chlorodibromomethane)	EPA 624.1

110.040	017	1,2-Dichlorobenzene	EPA 624.1
110.040	018	1,3-Dichlorobenzene	EPA 624.1
110.040	019	1,4-Dichlorobenzene	EPA 624.1
110.040	020	1,1-Dichloroethane	EPA 624.1
110.040	021	1,2-Dichloroethane	EPA 624.1
110.040	022	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 624.1
110.040	023	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 624.1
110.040	024	1,2-Dichloropropane	EPA 624.1
110.040	025	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 624.1
110.040	026	trans-1,3-Dichloropropylene (trans-1,3 Dichloroprope	EPA 624.1
110.040	029	Ethylbenzene	EPA 624.1
110.040	031	Methylene Chloride (Dichloromethane)	EPA 624.1
110.040	032	4-Methyl-2-pentanone (MIBK)	EPA 624.1
110.040	034	1,1,2,2-Tetrachloroethane	EPA 624.1
110.040	035	Tetrachloroethylene (Tetrachloroethene)	EPA 624.1
110.040	037	Toluene	EPA 624.1
110.040	038	1,1,1-Trichloroethane	EPA 624.1
110.040	039	1,1,2-Trichloroethane	EPA 624.1
110.040	040	Trichloroethylene (Trichloroethene)	EPA 624.1
110.040	041	Vinyl Chloride	EPA 624.1
110.040	042	m-Xylene	EPA 624.1
110.040	043	o-Xylene	EPA 624.1
110.040	044	p-Xylene	EPA 624.1
110.040	045	Trichlorofluoromethane	EPA 624.1
110.070	002	n-Amyl Acetate	EPA 1666
110.070	004	n-Butyl Acetate	EPA 1666
110.070	005	tert-Butyl Alcohol (TBA)	EPA 1666
110.070	006	Diethylamine	EPA 1666
110.070	007	Dimethyl Sulfoxide	EPA 1666
110.070	009	Ethyl Acetate	EPA 1666
110.070	010	n-Heptane	EPA 1666
110.070	011	n-Hexane	EPA 1666
110.070	012	lsobutyraldehyde	EPA 1666
110.070	013	Isopropyl Acetate	EPA 1666
110.070	014	Isopropyl Alcohol (Isopropanol)	EPA 1666
110.070	015	Isopropyl Ether (DIPE)	EPA 1666
110.070	017	2-Methoxyethanol	EPA 1666
110.070	018	Methyl Formate	EPA 1666
110.070	019	4-Methyl-2-pentanone (MIBK)	EPA 1666
110.070	021	Tetrahydrofuran	EPA 1666
110.070	022	Triethylamine	EPA 1666
110.070	023	m-Xylene	EPA 1666

Certificate No.: 1132 **Expiration Date:** 3/31/2022

110.070	024	o-Xylene	EPA 1666		
110.070	025	p-Xylene	EPA 1666		
Field of Testing: 111 - Semi-volatile Organic Constituents in Non-Potable Water					
111.055	001	Aldrin	EPA 608.3		
111.055	002	alpha-BHC	EPA 608.3		
111.055	003	beta-BHC	EPA 608.3		
111.055	004	delta-BHC	EPA 608.3		
111.055	005	gamma-BHC (Lindane)	EPA 608.3		
111.055	006	Chlordane	EPA 608.3		
111.055	007	4,4'-DDD	EPA 608.3		
111.055	800	4,4'-DDE	EPA 608.3		
111.055	009	4,4'-DDT	EPA 608.3		
111.055	010	Dieldrin	EPA 608.3		
111.055	011	Endosulfan I	EPA 608.3		
111.055	012	Endosulfan II	EPA 608.3		
111.055	013	Endosulfan Sulfate	EPA 608.3		
111.055	014	Endrin	EPA 608.3		
111.055	015	Endrin Aldehyde	EPA 608.3		
111.055	016	Heptachlor	EPA 608.3		
111.055	017	Heptachlor Epoxide	EPA 608.3		
111.055	019	PCB-1016	EPA 608.3		
111.055	020	PCB-1221	EPA 608.3		
111.055	021	PCB-1232	EPA 608.3		
111.055	022	PCB-1242	EPA 608.3		
111.055	023	PCB-1248	EPA 608.3		
111.055	024	PCB-1254	EPA 608.3		
111.055	025	PCB-1260	EPA 608.3		
111.055	046	Methoxychlor	EPA 608.3		
111.055	050	Pentachloronitrobenzene (PCNB)	EPA 608.3		
111.055	060	Toxaphene	EPA 608.3		
111.160	001	Acenaphthene	EPA 625.1		
111.160	002	Acenaphthylene	EPA 625.1		
111.160	003	Anthracene	EPA 625.1		
111.160	004	Benzidine	EPA 625.1		
111.160	005	Benzo(a)anthracene	EPA 625.1		
111.160	006	Benzo(a)pyrene	EPA 625.1		
1 <u>11.160</u>	007	Benzo(b)fluoranthene	EPA 625.1		
1 <u>11.160</u>	800	Benzo(g,h,i)perylene	EPA 625.1		
111.160	009	Benzo(k)fluoranthene	EPA 625.1		
111.160	010	Bis(2-chloroethoxy) Methane	EPA 625.1		
111.160	011	Bis(2-chloroethyl) Ether	EPA 625.1		
111.160	012	Bis(2-chloroisopropyl) Ether	EPA 625.1		

111.160	013	Bis(2-ethylhexyl)phthalate	EPA 625.1
111.160	014	4-Bromophenyl Phenyl Ether	EPA 625.1
111.160	015	Butyl Benzyl Phthalate	EPA 625.1
111.160	016	2-Chloronaphthalene	EPA 625.1
111.160	017	4-Chlorophenyl Phenyl Ether	EPA 625.1
111.160	018	Chrysene	EPA 625.1
111.160	019	Dibenz(a,h)anthracene	EPA 625.1
111.160	020	3,3'-Dichlorobenzidine	EPA 625.1
111.160	021	Diethyl Phthalate	EPA 625.1
111.160	022	Dimethyl Phthalate	EPA 625.1
111.160	023	Di-n-butyl Phthalate	EPA 625.1
111.160	024	2,4-Dinitrotoluene	EPA 625.1
111.160	025	2,6-Dinitrotoluene	EPA 625.1
111.160	026	Di-n-octyl Phthalate	EPA 625.1
111.160	027	Fluoranthene	EPA 625.1
111.160	028	Fluorene	EPA 625.1
111.160	029	Hexachlorobenzene	EPA 625.1
111.160	030	Hexachlorobutadiene	EPA 625.1
111.160	031	Hexachloroethane	EPA 625.1
111.160	032	Indeno(1,2,3-c,d)pyrene	EPA 625.1
111.160	033	Isophorone	EPA 625.1
111.160	034	Naphthalene	EPA 625.1
111.160	035	Nitrobenzene	EPA 625.1
111.160	036	N-nitrosodi-n-propylamine	EPA 625.1
111.160	037	Phenanthrene	EPA 625.1
111.160	038	Pyrene	EPA 625.1
111.160	039	1,2,4-Trichlorobenzene	EPA 625.1
111.160	040	4-Chloro-3-methylphenol	EPA 625.1
111.160	041	2-Chlorophenol	EPA 625.1
111.160	042	2,4-Dichlorophenol	EPA 625.1
111.160	043	2,4-Dimethylphenol	EPA 625.1
111.160	044	2,4-Dinitrophenol	EPA 625.1
111.160	045	2-Methyl-4,6-dinitrophenol	EPA 625.1
111.160	046	2-Nitrophenol	EPA 625.1
111.160	047	4-Nitrophenol	EPA 625.1
111.160	048	Pentachlorophenol	EPA 625.1
111.160	049	Phenol	EPA 625.1
111.160	050	2,4,6-Trichlorophenol	EPA 625.1
111.210	006	Diuron	EPA 632
111.260	041	N-nitrosodimethylamine	EPA 1625 B
111.260	042	N-nitrosodi-n-propylamine	EPA 1625 B
111.260	043	N-nitrosodiphenylamine	EPA 1625 B

3.3.b

111.345	001	N-Ethylperfluorooctane Sulfonamido Acetic Acid (NEt	DoD QSM Version 5.1 (or newer)
111.345	002	4:2 Fluorotelomer Sulfonic Acid (4:2 FTS)	DoD QSM Version 5.1 (or newer)
111.345	003	6:2 Fluorotelomer Sulfonic Acid (6:2 FTS)	DoD QSM Version 5.1 (or newer)
111.345	004	8:2 Fluorotelomer Sulfonic Acid (8:2 FTS)	DoD QSM Version 5.1 (or newer)
111.345	005	N-Methylperfluorooctane Sulfonamido Acetic Acid (N	DoD QSM Version 5.1 (or newer)
111.345	006	Perfluorobutanoic Acid (PFBA)	DoD QSM Version 5.1 (or newer)
111.345	007	Perfluorobutane Sulfonic Acid (PFBS)	DoD QSM Version 5.1 (or newer)
111.345	800	Perfluorodecanoic Acid (PFDA)	DoD QSM Version 5.1 (or newer)
111.345	009	Perfluorododecanoic Acid (PFDoA)	DoD QSM Version 5.1 (or newer)
111.345	010	Perfluorodecane Sulfonic Acid (PFDS)	DoD QSM Version 5.1 (or newer)
111.345	011	Perfluoroheptanoic Acid (PFHpA)	DoD QSM Version 5.1 (or newer)
111.345	012	Perfluoroheptane Sulfonic Acid (PFHpS)	DoD QSM Version 5.1 (or newer)
111.345	013	Perfluorohexane Sulfonic Acid (PFHxS)	DoD QSM Version 5.1 (or newer)
111.345	014	Perfluorohexanoic Acid (PFHxA)	DoD QSM Version 5.1 (or newer)
111.345	015	Perfluorononanoic Acid (PFNA)	DoD QSM Version 5.1 (or newer)
111.345	016	Perfluorooctanoic Acid (PFOA)	DoD QSM Version 5.1 (or newer)
111.345	017	Perfluorooctane Sulfonic Acid (PFOS)	DoD QSM Version 5.1 (or newer)
111.345	018	Perfluorooctane Sulfonamide (PFOSAm)	DoD QSM Version 5.1 (or newer)
111.345	019	Perfluoropentanoic Acid (PFPeA)	DoD QSM Version 5.1 (or newer)
111.345	020	Perfluoropentane Sulfonic Acid (PFPeS)	DoD QSM Version 5.1 (or newer)
111.345	021	Perfluorotetradecanoic Acid (PFTA)	DoD QSM Version 5.1 (or newer)
111.345	022	Perfluorotridecanoic Acid (PFTrDA)	DoD QSM Version 5.1 (or newer)
111.345	023	Perfluoroundecanoic Acid (PFUnDA)	DoD QSM Version 5.1 (or newer)
111.345	024	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	DoD QSM Version 5.1 (or newer)
111.345	025	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	DoD QSM Version 5.1 (or newer)
111.345	026	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	DoD QSM Version 5.1 (or newer)
111.345	027	N-Ethylperfluorooctane Sulfonamide (EtFOSAm)	DoD QSM Version 5.1 (or newer)
111.345	028	N-Ethylperfluorooctane Sulfonamido Ethanol (EtFOS	DoD QSM Version 5.1 (or newer)
111.345	030	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	DoD QSM Version 5.1 (or newer)
111.345	031	N-Methylperfluorooctane Sulfonamide (MeFOSAm)	DoD QSM Version 5.1 (or newer)
111.345	032	N-Methylperfluorooctane Sulfonamido Ethanol (MeF	DoD QSM Version 5.1 (or newer)
111.345	034	Perfluorononane Sulfonic Acid (PFNS)	DoD QSM Version 5.1 (or newer)
Field of	Testing	: 112 - Radionuclides in Non-Potable Water	
112.001	001	Gross Alpha	EPA 900.0
112.001	000	Crease Bata	
	002	Gross Beta	EPA 900.0
Field of	Testing	: 114 - Inorganic Chemistry of Hazardous Waste	EPA 900.0
Field of 114.010	002 Testing 001	: 114 - Inorganic Chemistry of Hazardous Waste Antimony	EPA 6010 B
Field of 114.010 114.010	002 Testing 001 002	Cross Beta : 114 - Inorganic Chemistry of Hazardous Waste Antimony Arsenic	EPA 6010 B EPA 6010 B
Field of 114.010 114.010 114.010	002 Testing 001 002 003	: 114 - Inorganic Chemistry of Hazardous Waste Antimony Arsenic Barium	EPA 6010 B EPA 6010 B EPA 6010 B
Field of 114.010 114.010 114.010 114.010	002 Testing 001 002 003 004	Cross Beta : 114 - Inorganic Chemistry of Hazardous Waste Antimony Arsenic Barium Beryllium	EPA 6010 B EPA 6010 B EPA 6010 B EPA 6010 B EPA 6010 B
Field of 114.010 114.010 114.010 114.010 114.010	002 Testing 001 002 003 004 005	Cross Beta : 114 - Inorganic Chemistry of Hazardous Waste Antimony Arsenic Barium Beryllium Cadmium	EPA 6010 B EPA 6010 B EPA 6010 B EPA 6010 B EPA 6010 B EPA 6010 B

Certificate No.: 1132 Expiration Date: 3/31/2022

114.010	007	Cobalt	EPA 6010 B		
114.010	800	Copper	EPA 6010 B		
114.010	009	Lead	EPA 6010 B		
114.010	010	Molybdenum	EPA 6010 B		
114.010	011	Nickel	EPA 6010 B		
114.010	012	Selenium	EPA 6010 B		
114.010	013	Silver	EPA 6010 B		
114.010	014	Thallium	EPA 6010 B		
114.010	015	Vanadium	EPA 6010 B		
114.010	016	Zinc	EPA 6010 B		
114.020	001	Antimony	EPA 6020		
114.020	002	Arsenic	EPA 6020		
114.020	003	Barium	EPA 6020		
114.020	004	Beryllium	EPA 6020		
114.020	005	Cadmium	EPA 6020		
114.020	006	Chromium	EPA 6020		
114.020	007	Cobalt	EPA 6020		
114.020	800	Copper	EPA 6020		
114.020	009	Lead	EPA 6020		
114.020	010	Molybdenum	EPA 6020		
114.020	011	Nickel	EPA 6020		
114.020	012	Selenium	EPA 6020		
114.020	013	Silver	EPA 6020		
114.020	014	Thallium	EPA 6020		
114.020	015	Vanadium	EPA 6020		
114.020	016	Zinc	EPA 6020		
114.106	001	Chromium (VI)	EPA 7199		
114.140	001	Mercury	EPA 7470 A		
114.141	001	Mercury	EPA 7471 A		
114.222	001	Cyanide, Total	EPA 9014		
114.240	001	Corrosivity - pH Determination	ЕРА 9040 В		
114.241	001	Corrosivity - pH Determination	EPA 9045 C		
114.250	001	Fluoride	EPA 9056		
Field of Testing: 115 - Extraction Test of Hazardous Waste					
115.020	001	Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311		
115.021	001	TCLP Inorganics	EPA 1311		
115.022	001	TCLP Extractables	EPA 1311		
115.023	001	TCLP Volatiles	EPA 1311		
115.030	001	Waste Extraction Test (WET)	CCR Chapter11, Article 5, Appendix II		
115.040	001	Synthetic Precipitation Leaching Procedure (SPLP)	EPA 1312		
Field of	Field of Testing: 116 - Volatile Organic Chemistry of Hazardous Waste				
116.020	030	Nonhalogenated Volatiles	EPA 8015 B		

116.020	031	Ethanol and Methanol	EPA 8015 B
116.080	000	Volatile Organic Compounds	EPA 8260 B
116.090	000	Acrylamide, Acrylonitrile, Acrolein	EPA 8316
116.100	001	Total Petroleum Hydrocarbons - Gasoline (GRO)	LUFT GC/MS
Field of	Testing	: 117 - Semi-volatile Organic Chemistry of Hazardous Wa	ste
117.010	001	Diesel-range Total Petroleum Hydrocarbons	EPA 8015 B
117.110	000	Extractable Organics	EPA 8270 C
117.111	071	Pesticides	EPA 8270 C
117.150	000	Carbonyl Compounds	EPA 8315 A
117.171	000	Nitroaromatics and Nitramines	EPA 8330 A
117.210	000	Organochlorine Pesticides	EPA 8081 A
117.220	000	PCBs	EPA 8082
117.240	000	Organophosphorus Pesticides	EPA 8141 A
117.250	000	Chlorinated Herbicides	EPA 8151 A
117.270	000	Carbamates, N-methylcarbamates	EPA 8318
117.280	000	Carbamates	EPA 8321 A
Field of	Testing	: 120 - Physical Properties of Hazardous Waste	
120.010	001	Ignitability	EPA 1010
120.070	001	Corrosivity - pH Determination	EPA 9040 B
120.080	001	Corrosivity - pH Determination	EPA 9045 C
Field of	Testing	: 126 - Microbiological Methods for Ambient Water	
126.003	001	Total Coliform (Enumeration)	SM 9221 B,C-2006
126.003	002	Fecal Coliform (Enumeration)	SM 9221 C,E-2006
126.007	001	E. coli (Enumeration)	SM 9223 B-2004
126.015	001	E. coli (Enumeration)	Colilert
126.017	001	E. coli (Enumeration)	Colilert 18
126.019	001	Enterococci	Enterolert





CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

Aquatic Bioassay & Consulting Laboratories, Inc.

29 North Olive Street

Ventura, CA 93001

Scope of the certificate is limited to the "Fields of Testing" which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: 1907

Expiration Date: 7/31/2021

Effective Date: 8/1/2019

a nist in

Christine Sotelo, Chief Environmental Laboratory Accreditation Program

Sacramento, California subject to forfeiture or revocation



CALIFORNIA STATE ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM Accredited Fields of Testing



29 North Olive Street Ventura, CA 93001 Phone: 8056435621 Certificate No. 1907 Expiration Date 7/31/2021

Field of	Testing	: 113 - Whole Effluent Toxicity of Wastew	rater
113,010	001A	Fathead Minnow (P. promelas)	EPA 600/4-90/027F, Static
113,010	001B	Fathead Minnow (P. promelas)	EPA 600/4-90/027F, Static Renewal
113.010	003A	Rainbow trout (O. mykiss)	EPA 600/4-90/027F, Static
113.010	003B	Rainbow trout (O. mykiss)	EPA 600/4-90/027F, Static Renewal
113.010	005A	Daphnid (C, dubia)	EPA 600/4-90/027F, Static
113.010	005B	Daphnid (C_dubia)	EPA 600/4-90/027F, Static Renewal
113,010	006A	Daphnia spp	EPA 600/4-90/027F, Static
113,010	006B	Daphnia spp	EPA 600/4-90/027F, Static Renewal
113,010	008A	Topsmelt (A affinis)	EPA 600/4-90/027F, Static
113.010	008B	Topsmelt (A. affinis)	EPA 600/4-90/027F, Static Renewal
113.010	009A	Silverside (Menidia spp.)	EPA 600/4-90/027F, Static
113.010	009B	Silverside (Menidia spp.)	EPA 600/4-90/027F, Static Renewal
113.010	012A	Mysid (M. bahia)	EPA 600/4-90/027F, Static
113.010	012B	Mysid (M. bahia)	EPA 600/4-90/027F, Static Renewal
113,021	001A	Fathead Minnow (P. promelas)	EPA 2000 (EPA-821-R-02-012), Static
113,021	001B	Fathead Minnow (P. promelas)	EPA 2000 (EPA-821-R-02-012), Static Renewal
113.022	003A	Rainbow trout (O mykiss)	EPA 2019 (EPA-821-R-02-012), Static
113.022	003B	Rainbow trout (O mykiss)	EPA 2019 (EPA-821-R-02-012), Static Renewal
113.023	005A	Daphnid (C. dubia)	EPA 2002 (EPA-821-R-02-012), Static
113,023	005B	Daphnid (C. dubia)	EPA 2002 (EPA-821-R-02-012), Static Renewal
113.024	006A	Daphnia spp	EPA 2021 (EPA-821-R-02-012), Static
113.024	006B	Daphnia spp	EPA 2021 (EPA-821-R-02-012), Static Renewal
113.025	009A	Silverside (Menidia spp.)	EPA 2006 (EPA-821-R-02-012), Static
113.025	009B	Silverside (Menidia spp.)	EPA 2006 (EPA-821-R-02-012), Static Renewal
113.027	012A	Mysid (M. bahia)	EPA 2007 (EPA-821-R-02-012), Static
113.027	012B	Mysid (M. bahia)	EPA 2007 (EPA-821-R-02-012), Static Renewal
113.028	008A	Topsmelt (A. affinis)	EPA-821-R-02-012, Static
113,028	008B	Topsmelt (A. affinis)	EPA-821-R-02-012, Static Renewal
113.029	001A	Hyalella spp	EPA-821-R-02-012, Static
113.029	001B	Hyalella spp.	EPA-821-R-02-012, Static Renewal
113,041	001	Fathead Minnow (P. promelas)	EPA 1000 (EPA-821-R-02-013)
113,050	005	Daphnid (C. dubia)	EPA 1002 (EPA/600/4-91/002)
113.051	005	Daphnid (C. dubia)	EPA 1002 (EPA-821-R-02-013)

As of 7/29/2019 , this list supersedes all previous lists for this certificate number. Customers: Please verify the current accreditation standing with the State.

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Aquatic Bioassay & Consulting Laboratories, Inc.

Certificate No. 1907 Expiration Date /31/2021

113.060	020	Green algae (S. capricornutum)	EPA 1003 (EPA/600/4-91/002)
113.061	020	Green algae (S, capricornutum)	EPA 1003 (EPA-821-R-02-013)
113.071	020	Green algae (S. capricornutum)	ASTM E1218-04
113.080	009	Silverside (Menidia spp.)	EPA 1006 (EPA/600/4-91/003)
113.081	009	Silverside (Menidia spp.)	EPA 1006 (EPA-821-R-02-014)
113.090	012	Mysid (M. bahia)	EPA 1007 (EPA/600/4-91/003)
113.091	012	Mysid (M. bahia)	EPA 1007 (EPA-821-R-02-014)
113,120	800	Topsmelt (A, affinis)	EPA 600/R-95/136
113,120	014	Pacific oyster (C. gigas)	EPA 600/R-95/136
113.120	015D	Sand dollar (D. excentricus)	EPA 600/R-95/136, Fertilization Test
113.120	015E	Sand dollar (D. excentricus)	EPA 600/R-95/136, Development Test
113.120	017D	Purple sea urchin (S. purpuratus)	EPA 600/R-95/136, Fertilization Test
113.120	017E	Purple sea urchin (S purpuratus)	EPA 600/R-95/136, Development Test
113.120	019	Mussels (Mytilus spp.)	EPA 600/R-95/136
113 ,12 0	022	Giant Kelp (M. pyrifera)	EPA 600/R-95/136
113,120	023	Red abalone (H. rufescens)	EPA 600/R-95/136
113.160	026	Amphipod (H. azteca)	EPA 600/R-99/064, EPA 100 1
113.210	030	Amphipod (E. estuarius)	EPA 600/R-94/025, EPA 100.4
Field of	Testing	: 119 - Toxicity Bioassay of Hazardous W	aste
119.010	001	Fathead Minnow (P. promelas)	Policini & Miller (CDEC 1099)
119 010	003	Rainbow trout (O. mykiss)	Polisini & Miller (CDFG 1988)
119,010 119,020	003 026	Rainbow trout (O. mykiss) Amphipod (H. azteca)	Polisini & Miller (CDFG 1988) EPA 100,1
119.010 119.020 119.050	003 026 030	Rainbow trout (O. mykiss) Amphipod (H. azteca) Amphipod (E. estuarius)	Polisini & Miller (CDFG 1988) EPA 100.1 EPA 100.4
119.010 119.020 119.050 Field of	003 026 030 Testing	Rainbow trout (O. mykiss) Amphipod (H. azteca) Amphipod (E. estuarius) : 126 - Microbiology of Recreational Wate	Polisini & Miller (CDFG 1988) EPA 100.1 EPA 100.4
119.010 119.020 119.050 Field of 126.010	003 026 030 Testing 001	Rainbow trout (O. mykiss) Amphipod (H. azteca) Amphipod (E. estuarius) : 126 - Microbiology of Recreational Wate Total Coliform (Enumeration)	Polisini & Miller (CDFG 1988) EPA 100,1 EPA 100,4 r SM 9221 B-2006
119.010 119.020 119.050 Field of 126.010 126.030	003 026 030 Testing 001 001	Rainbow trout (O. mykiss) Amphipod (H. azteca) Amphipod (E. estuarius) : 126 - Microbiology of Recreational Wate Total Coliform (Enumeration) Fecal Coliform (Enumeration)	Polisini & Miller (CDFG 1988) EPA 100.1 EPA 100.4 r SM 9221 B-2006 SM 9221 C,E-2006
119.010 119.020 119.050 Field of [*] 126.010 126.030 126.050	003 026 030 Testing 001 001 001	Rainbow trout (O. mykiss) Amphipod (H. azteca) Amphipod (E. estuarius) : 126 - Microbiology of Recreational Wate Total Coliform (Enumeration) Fecal Coliform (Enumeration) Total Coliform (Enumeration)	Polisini & Miller (CDFG 1988) EPA 100,1 EPA 100,4 r SM 9221 B-2006 SM 9221 C,E-2006 SM 9223 B Colilert
119.010 119.020 119.050 Field of 126.010 126.030 126.050 126.050	003 026 030 Testing 001 001 001 002	Rainbow trout (O. mykiss) Amphipod (H. azteca) Amphipod (E. estuarius) : 126 - Microbiology of Recreational Wate Total Coliform (Enumeration) Fecal Coliform (Enumeration) Total Coliform (Enumeration) E. coli (Enumeration)	Polisini & Miller (CDFG 1988) EPA 100.1 EPA 100.4 r SM 9221 B-2006 SM 9223 B Colilert SM 9223 B Colilert





State Water Resources Control Board

July 30, 2019

Scott Johnson Aquatic Bioassay & Consulting Laboratories, Inc. 29 North Olive Street Ventura, CA 93001

Dear Scott Johnson:

Certificate No. 1907

Congratulations! This notice advises that the laboratory named above has been accredited as an environmental testing laboratory pursuant to the provisions of the California Health and Safety Code (HSC) Sections 100825-100920. The analyses for which this laboratory is accredited are indicated on the enclosed "Accredited Fields of Testing" List.

The laboratory's accreditation begins on the date printed on the enclosed certificate. For renewed accreditations, this date is determined by compliance with applicable deadlines. Noncompliance with these deadlines may have resulted in lapse of accreditation.

Be advised, the laboratory may have been denied accreditation for one or more analyses for which it applied due to failure to comply with regulatory requirements for application or accreditation. It is the laboratory's responsibility to review the enclosed list and know for which methods the laboratory has been accredited. This accreditation is a final action of the state board, subject to petition under Health and Safety Code Section 116701 within 30 days. However, if you believe that a FOT has been left off of your accreditation in error, you may submit to ELAP within 30 days of this letter, an "Accreditation Inquiry Request Form" located at www.waterboards.ca.gov/elap identifying any mistakes or errors you believe occurred in your accreditation, which will begin the period in which to file a petition. ELAP will then review all timely submitted "Accreditation Inquiry Request Forms" and will make a final determination which could then petitioned to the State Water Resources Control Board. Failure to submit a petition to the State Water Resources Control Board or an "Accreditation Inquiry Request Form" to ELAP within 30 days of this letter will prohibit you from obtaining any further review of your accreditation.

HSC Section 100890 lists the civil penalties for environmental laboratories that perform analyses for state regulatory purposes without a valid certificate.

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

1001 | Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, CA 95812-0100 | www.waterboards.ca.gov

Continued accreditation is contingent upon compliance with HSC Sections 100825-100920 and California Code of Regulations, Title 22, Division 4, Chapter 19, Certification of Environmental Laboratories. ELAP reserves the right to take enforcement action, including issuance of civil penalties, or supension and revocation of the laboratory's ELAP certificate, for failure to comply with all applicable regulations, statutes and orders.

Thank you

Christine Sotelo, Chief California Environmental Laboratory Accreditation Program (CA ELAP)

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

1001 | Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, CA 95812-0100 | www.waterboards.ca.gov

Packet Pg. 91



CALIFORNIA STATE ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM Accredited Fields of Testing



Aquatic Bioassay & Consulting Laboratories, Inc.

29 North Olive Street Ventura, CA 93001 Phone: 8056435621 Certificate No. 1907 Expiration Date 7/31/2021

Field of Testing: 113 - Whole Effluent Toxicity of Wastewater				
113.010	001A	Fathead Minnow (P. promelas)	EPA 600/4-90/027F, Static	
113.010	001B	Fathead Minnow (P. promelas)	EPA 600/4-90/027F, Static Renewal	
113.010	003A	Rainbow trout (O. mykiss)	EPA 600/4-90/027F, Static	
113.010	003B	Rainbow trout (O. mykiss)	EPA 600/4-90/027F, Static Renewal	
113.010	005A	Daphnid (C. dubia)	EPA 600/4-90/027F, Static	
113.010	005B	Daphnid (C. dubia)	EPA 600/4-90/027F, Static Renewal	
113.010	006A	Daphnia spp.	EPA 600/4-90/027F, Static	
113.010	006B	Daphnia spp.	EPA 600/4-90/027F, Static Renewal	
113.010	008A	Topsmelt (A. affinis)	EPA 600/4-90/027F, Static	
113.010	008B	Topsmelt (A. affinis)	EPA 600/4-90/027F, Static Renewal	
113.010	009A	Silverside (Menidia spp.)	EPA 600/4-90/027F, Static	
113.010	009B	Silverside (Menidia spp.)	EPA 600/4-90/027F, Static Renewal	
113.010	012A	Mysid (M. bahia)	EPA 600/4-90/027F, Static	
113.010	012B	Mysid (M. bahia)	EPA 600/4-90/027F, Static Renewal	
113.021	001A	Fathead Minnow (P. promelas)	EPA 2000 (EPA-821-R-02-012), Static	
113.021	001B	Fathead Minnow (P. promelas)	EPA 2000 (EPA-821-R-02-012), Static Renewal	
113.022	003A	Rainbow trout (O. mykiss)	EPA 2019 (EPA-821-R-02-012), Static	
113.022	003B	Rainbow trout (O. mykiss)	EPA 2019 (EPA-821-R-02-012), Static Renewal	
113.023	005A	Daphnid (C. dubia)	EPA 2002 (EPA-821-R-02-012), Static	
113.023	005B	Daphnid (C. dubia)	EPA 2002 (EPA-821-R-02-012), Static Renewal	
113.024	006A	Daphnia spp.	EPA 2021 (EPA-821-R-02-012), Static	
113.024	006B	Daphnia spp.	EPA 2021 (EPA-821-R-02-012), Static Renewal	
113.025	009A	Silverside (Menidia spp.)	EPA 2006 (EPA-821-R-02-012), Static	
113.025	009B	Silverside (Menidia spp.)	EPA 2006 (EPA-821-R-02-012), Static Renewal	
113.027	012A	Mysid (M. bahia)	EPA 2007 (EPA-821-R-02-012), Static	
113.027	012B	Mysid (M. bahia)	EPA 2007 (EPA-821-R-02-012), Static Renewal	
113.028	008A	Topsmelt (A. affinis)	EPA-821-R-02-012, Static	
113.028	008B	Topsmelt (A. affinis)	EPA-821-R-02-012, Static Renewal	
113.029	001A	Hyalella spp.	EPA-821-R-02-012, Static	
113.029	001B	Hyalella spp.	EPA-821-R-02-012, Static Renewal	
113.041	001	Fathead Minnow (P. promelas)	EPA 1000 (EPA-821-R-02-013)	
113.050	005	Daphnid (C. dubia)	EPA 1002 (EPA/600/4-91/002)	
113.051	005	Daphnid (C. dubia)	EPA 1002 (EPA-821-R-02-013)	

As of 7/29/2019 , this list supersedes all previous lists for this certificate number. Customers: Please verify the current accreditation standing with the State.

Page 1 of 2

Aquatic Bioassay & Consulting Laboratories, Inc.

Green algae (S. capricornutum)

113.060 020

Page 2 of 2

112 061	020	Green alose (S. capricomutum)	EPA 1003 (EPA-821-R-02-013)
112.001	020	Green algae (S. capricornutum)	ASTM E1218-04
113.071	020	Silvereide (Menidia spp.)	EPA 1006 (EPA/600/4-91/003)
113.060	009		EPA 1006 (EPA-821-R-02-014)
113.081	009	Silverside (Menidia spp.)	EPA 1007 (EPA/600/4-91/003)
113.090	012		
113.091	012	Mysid (M. bahia)	
113.120	800	Topsmelt (A. affinis)	EPA 600/K-95/130
113.120	014	Pacific oyster (C. gigas)	EPA 600/R-95/136
113.120	015D	Sand dollar (D. excentricus)	EPA 600/R-95/136, Fertilization Test
113.120	015E	Sand dollar (D. excentricus)	EPA 600/R-95/136, Development Test
113.120	017D	Purple sea urchin (S. purpuratus)	EPA 600/R-95/136, Fertillzation Test
113.120	017E	Purple sea urchin (S. purpuratus)	EPA 600/R-95/136, Development Test
113.120	019	Mussels (Mytilus spp.)	EPA 600/R-95/136
113.120	022	Giant Kelp (M. pyrifera)	EPA 600/R-95/136
113.120	023	Red abalone (H. rufescens)	EPA 600/R-95/136
113,160	026	Amphipod (H. azteca)	EPA 600/R-99/064, EPA 100.1
113.210	030	Amphipod (E. estuarius)	EPA 600/R-94/025, EPA 100.4
Field of	Testing	g: 119 - Toxicity Bioassay of Hazardous	Waste
119.010	001	Fathead Minnow (P. promelas)	Polisini & Miller (CDFG 1988)
119.010	003	Rainbow trout (O. mykiss)	Polisini & Miller (CDFG 1988)
119.020	026	Amphipod (H. azteca)	EPA 100.1
119.050	030	Amphipod (E. estuarius)	EPA 100.4
Field of	Testin	g: 126 - Microbiology of Recreational Wa	ater
126.010	001	Total Colliform (Enumeration)	SM 9221 B-2006
126.030	001	Fecal Coliform (Enumeration)	SM 9221 C,E-2006
126.050	001	Total Coliform (Enumeration)	SM 9223 B Collert
126.050	002	E. coli (Enumeration)	SM 9223 B Colliert
126.080	001	Enterococci	Enterolert
10-10-10-10-10-10-10-10-10-10-10-10-10-1			

ÉPA 1003 (EPA/600/4-91/002)

1907

Certificate No.

Expiration Date /31/2021



Interim



CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

EMSL Analytical, Inc.

South Pasadena, CA

520 Mission Street

South Pasadena, CA 91030

Scope of the certificate is limited to the "Fields of Testing" which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: 2283

Expiration Date: 12/31/2020

Effective Date: 1/1/2020

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Sacramento, California subject to forfeiture or revocation

Christine Sotelo, Chief Environmental Laboratory Accreditation Program



CALIFORNIA STATE ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM Accredited Fields of Testing



EMSL Analytical, Inc. South Pasadena, CA 520 Mission Street South Pasadena, CA 91030 Phone: 8003030047

Certificate No. 2283 Expiration Date 12/31/2020 INTERIM

Field of Testing: 101 - Microbiology of Drinking Water			
101.010	001	Heterotrophic Bacteria	SM 9215 B
101.050	001	Total Coliform P/A	SM 9223 B Colilert
101.050	002	E, coli P/A	SM 9223 B Colilert
101.050	003	Total Coliform (Enumeration)	SM 9223 B Colliert
Field of T	esting	: 103 - Toxic Chemical Elements of Drink	ing Water
103.301	001	Asbestos	EPA 100.2
Fleid of Testing: 107 - Microbiological Methods for Non-Potable Water and Sewage Sludge			
Field of T	esting	: 107 - Microbiological Methods for Non-P	Potable Water and Sewage Sludge
Field of T 107.003	esting 002	: 107 - Microbiological Methods for Non-F Fecal Coliform (Enumeration)	Potable Water and Sewage Sludge SM 9222 D-2006
Field of T 107.003 Field of T	esting 002 esting	 107 - Microbiological Methods for Non-P Fecal Coliform (Enumeration) 121 - Bulk Asbestos Analysis of Hazarda 	Potable Water and Sewage Studge SM 9222 D-2006 ous Waste
Field of T 107.003 Field of T 121.010	esting 002 esting 001	 107 - Microbiological Methods for Non-P Fecal Coliform (Enumeration) 121 - Bulk Asbestos Analysis of Hazard Bulk Asbestos 	Potable Water and Sewage Sludge SM 9222 D-2006 ous Waste EPA 600/M4-82-020
Field of T 107.003 Field of T 121.010 Field of T	esting 002 esting 001 esting	 107 - Microbiological Methods for Non-F Fecal Coliform (Enumeration) 121 - Bulk Asbestos Analysis of Hazarda Bulk Asbestos 126 - Microbiological Methods for Ambie 	Potable Water and Sewage Sludge SM 9222 D-2006 OUS Waste EPA 600/M4-82-020 ent Water
Field of T 107.003 Field of T 121.010 Field of T 126.005	esting 002 esting 001 esting 003	 107 - Microbiological Methods for Non-P Fecal Coliform (Enumeration) 121 - Bulk Asbestos Analysis of Hazarda Bulk Asbestos 126 - Microbiological Methods for Amble Fecal Collform (Enumeration) 	Potable Water and Sewage Studge SM 9222 D-2006 Cous Waste EPA 600/M4-82-020 Cont Water SM 9222 D-2006





Accredited Laboratory

A2LA has accredited

PACE ANALYTICAL SERVICES, LLC

Minneapolis, MN

for technical competence in the field of

Environmental Testing

In recognition of the successful completion of the A2LA evaluation process that includes an assessment of the laboratory's compliance with ISO/IEC 17025:2017, the 2009 TNI Environmental Testing Laboratory Standard, and the requirements of the Department of Defense Environmental Laboratory Accreditation Program (DoD ELAP) as detailed in version 5.3 of the DoD Quality System Manual for Environmental Laboratories (QSM), accreditation is granted to this laboratory to perform recognized EPA methods as defined on the associated A2LA Environmental Scope of Accreditation. This accreditation demonstrates technical competence for this defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 29th day of August 2019.

Vice President, Accreditation Services For the Accreditation Council Certificate Number 2926.01 Valid to October 31, 2021

For the tests to which this accreditation applies, please refer to the laboratory's Environmental Scope of Accreditation.

(A2LACert. No. 2926.01) 08/29/2019

5202 Presidents Court, Suite 220 Frederick, MD 21703-8398 Phone: 301 644 3248 Fax: 240 454 9449 www.A2LA.org

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

PACE ANALYTICAL SERVICES, LLC. 1700 Elm Street SE, Suite 200 Minneapolis, MN 55414 Janielle Ward Phone: 612-607-6352

ENVIRONMENTAL

Valid To: October 31, 2021

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on <u>dietary supplements</u>, <u>food products</u>, <u>and animal feed stocks</u>:

<u>Chemical Tests</u> – Non-environmental testing

Test	Test Method(s)	
PCB Congeners	EPA 1668A	
Dioxins and Furans	EPA 1613B	
	EPA 8290A	

Environmental Tests

In recognition of the successful completion of the A2LA evaluation process, (including an assessment of the laboratory's compliance with ISO IEC 17025:2017, the 2009 TNI Environmental Testing Laboratory Standard, and the requirements of the DoD Environmental Laboratory Accreditation Program (DoD ELAP) as detailed in version 5.3 of the DoD Quality Systems Manual for Environmental Laboratories) accreditation is granted to this laboratory to perform recognized EPA methods using the following testing technologies and in the analyte categories identified below:

Testing Technologies: Gas Chromatography/Mass Spectrometry, High Resolution Gas Chromatography/Mass Spectrometry

Parameter/Analyte	Potable Water	Nonpotable Water	Solid Hazardous Waste	Tissue
Extractable Organics				
2,3,7,8-TCDD	EPA 1613B	EPA 1613B EPA 8290/8290A	EPA 1613B EPA 8290/8290A	EPA 1613B EPA 8290/8290A
2,3,7,8-TCDF		EPA 1613B EPA 8290/8290A	EPA 1613B EPA 8290/8290A	EPA 1613B EPA 8290/8290A
1,2,3,7,8-PeCDF		EPA 1613B EPA 8290/8290A	EPA 1613B EPA 8290/8290A	EPA 1613B EPA 8290/8290A
2,3,4,7,8-PeCDF		EPA 1613B EPA 8290/8290A	EPA 1613B EPA 8290/8290A	EPA 1613B EPA 8290/8290A
1,2,3,7,8-PeCDD		EPA 1613B EPA 8290/8290A	EPA 1613B EPA 8290/8290A	EPA 1613B EPA 8290/8290A
1,2,3,4,7,8-HxCDF		EPA 1613B EPA 8290/8290A	EPA 1613B EPA 8290/8290A	EPA 1613B EPA 8290/8290A

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Certificate Number: 2926.01





3.3.b

CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

Eurofins Eaton Analytical, LLC - Monrovia

750 Royal Oaks Drive, Suite 100

Monrovia, CA 91016

Scope of the certificate is limited to the "Fields of Testing" which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection, proficiency testing studies, and payment of applicable fees.

> This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: 2813

Sacramento, California

Expiration Date: 2/1/2021

Effective Date: 2/2/2019

subject to forfeiture or revocation

nieten:

Christine Sotelo, Chief Environmental Laboratory Accreditation Program



CALIFORNIA STATE ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM Accredited Fields of Testing



Eurofins Eaton Analytical, LLC - Monrovia

750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016 Phone: 6263861100 Certificate No. 2813 Expiration Date 2/1/2021

101.010 001 Heterotrophic Bacteria SM 9215 B 101.020 001 Total Colform P/A SM 9221 B 101.020 003 E. coli P/A SM 9221 B.F 101.020 004 Total Colform P/A SM 9221 B.F 101.020 005 Fead Colform (Enumeration) SM 9221 B.F 101.020 006 E. coli (Enumeration) SM 9221 B.F 101.020 006 Fead Colform (Enumeration) SM 9221 B.F 101.020 006 Fead Colform (Enumeration) SM 9221 B.F 101.050 001 Total Colform P/A SM 9223 B Collert 101.050 004 E. coli (Enumeration) SM 9223 B Collert 101.050 004 E. coli (Enumeration) SM 9223 B Collert 101.050 004 E. coli (Enumeration) SM 9223 B Collert 101.050 006 E. coli (Enumeration) SM 9223 B Collert 101.050 006 E. coli (Enumeration) SM 9223 B Collert 101.050 007 Total Colform (Enumeration) SM 9223 B Collert	Field of Testing: 101 - Microbiology of Drinking Water			
101.010 002 Heterotrophic Bacteria SimPlate 101.020 001 Total Coliform P/A SM 9221 B.E 101.020 003 E.coli P/A SM 9221 B.E 101.020 004 Total Coliform (Enumeration) SM 9221 B.E 101.020 005 E.coli P/A SM 9221 B.E 101.020 006 E.coli (Enumeration) SM 9221 B.E 101.020 006 E.coli (Enumeration) SM 9221 B.E 101.020 006 E.coli (Enumeration) SM 9223 B.Coliert 101.050 001 Total Coliform (Enumeration) SM 9223 B.Coliert 101.050 003 Total Coliform (Enumeration) SM 9223 B.Coliert 101.050 004 E.coli (Enumeration) SM 9223 B.Coliert 101.050 005 Total Coliform (Enumeration) SM 9223 B.Coliert 101.050 006 E.coli (Finumeration) SM 9223 B.Coliert 18 101.050 007 Total Coliform (Enumeration) SM 9223 B.Coliert 18 101.050 008 E.coli (Finumeration) SM 9223 B.Coliert 18 <td>101.010</td> <td>001</td> <td>Heterotrophic Bacteria</td> <td>SM 9215 B</td>	101.010	001	Heterotrophic Bacteria	SM 9215 B
101.020 001 Total Coliform PIA SM 9221 B 101.020 003 E. cali PIA SM 9221 B, E 101.020 004 Total Coliform (Enumeration) SM 9221 B, E 101.020 005 Fecal Coliform (Enumeration) SM 9221 B, E 101.020 006 E. coli (Enumeration) SM 9221 B, E 101.020 006 E. coli (Enumeration) SM 9221 B, E 101.020 006 E. coli (Enumeration) SM 9223 B Coliert 101.050 001 Total Coliform (Enumeration) SM 9223 B Coliert 101.050 004 E. coli (Enumeration) SM 9223 B Coliert 101.050 005 Total Coliform (Enumeration) SM 9223 B Coliert 101.050 006 E. coli (Enumeration) SM 9223 B Coliert 18 101.050 007 Total Coliform (Enumeration) SM 9223 B Coliert 18 101.050 008 E. coli (Enumeration) SM 9223 B Coliert 101.050 007 Total Coliform PIA SM 9223 B Coliert 101.050 008 E. coli (Enumeration)	101.010	002	Heterotrophic Bacteria	SimPlate
101.020 002 Fecal Coliforn P/A SM 9221 B,E 101.020 004 Total Coliform (Enumeration) SM 9221 B,C 101.020 005 Fecal Coliform (Enumeration) SM 9221 B,C 101.020 006 E. coli (Enumeration) SM 9221 B,C 101.020 006 E. coli (Enumeration) SM 9221 B,C 101.020 006 E. coli (Enumeration) SM 9221 B,C 101.050 001 Total Coliform (Fnumeration) SM 9223 B Colliert 101.050 003 Total Coliform (Enumeration) SM 923 B Colliert 101.050 004 E. coli (Enumeration) SM 923 B Colliert 101.050 005 Total Coliform P/A SM 923 B Colliert 101.050 006 E. coli (Enumeration) SM 923 B Colliert 18 101.050 006 E. coli (Enumeration) SM 923 B Colliert 18 101.050 007 Total Coliform P/A SM 923 B Colliert 18 101.050 006 E. coli P/A SM 923 B Colliert 18 101.050 007 Total Coliform P/A SM 923 B	101.020	001	Total Coliform P/A	SM 9221 B
101.020 003 E. coli P/A SM 9221 B,F 101.020 005 Fecal Coliform (Enumeration) SM 9221 B,C 101.020 006 E. coli (Enumeration) SM 9221 B,F 101.020 006 E. coli (Enumeration) SM 9221 B,F 101.050 001 Total Coliform P/A SM 9223 B Coliert 101.050 002 E. coli (Enumeration) SM 9223 B Coliert 101.050 004 E. coli (Enumeration) SM 9223 B Coliert 101.050 005 Total Coliform (Enumeration) SM 9223 B Coliert 101.050 006 E. coli (Enumeration) SM 9223 B Coliert 101.050 007 Total Coliform P/A SM 9223 B Coliert 101.050 006 E. coli (Enumeration) SM 9223 B Coliert 101.050 007 Total Coliform P/A SM 9223 B Coliert 101.050 008 E. coli (Enumeration) SM 9223 B Coliert 101.050 008 E. coli (Enumeration) SM 9223 B Coliert 101.050 001 E. coli (Coliform P/A SM 9223 B Coliert <td>101.020</td> <td>002</td> <td>Fecal Coliform P/A</td> <td>SM 9221 B,E</td>	101.020	002	Fecal Coliform P/A	SM 9221 B,E
101.020 004 Total Coliform (Enumeration) SM 9221 B,C 101.020 006 E.coli (Enumeration) SM 9221 B,E 101.020 001 Total Coliform (Enumeration) SM 9221 B,E 101.050 001 Total Coliform P/A SM 9223 B Collect 101.050 002 E.coi (PA SM 9223 B Collect 101.050 004 E.coi (Enumeration) SM 9223 B Collect 101.050 005 Total Coliform P/A SM 9223 B Collect 101.050 006 E.coi (Enumeration) SM 9223 B Collect 18 101.050 006 E.coi (Enumeration) SM 9223 B Collect 18 101.050 007 Total Coliform (Enumeration) SM 9223 B Collect 18 101.050 008 E.coi (Enumeration) SM 9223 B Collect 18 101.050 009 Total Coliform P/A SM 9223 B Collect 18 101.050 008 E.coi (Enumeration) SM 9223 B Collect 18 101.050 009 Total Coliform P/A SM 9223 B Collect 18 101.050 001 E.coi P/A SM 9223 B Colle	101.020	003	E. coli P/A	SM 9221 B,F
101.020 005 Fecal Coliform (Enumeration) SM 9221 B,E 101.020 006 E. coli (Enumeration) SM 9221 B,F 101.050 001 Total Coliform P/A SM 9223 B Colilert 101.050 002 E. coli (Enumeration) SM 9223 B Colilert 101.050 004 E. coli (Enumeration) SM 9223 B Colilert 101.050 005 Total Coliform (Enumeration) SM 9223 B Colilert 101.050 006 E. coli (Enumeration) SM 9223 B Colilert 18 101.050 006 E. coli (Enumeration) SM 9223 B Colilert 18 101.050 007 Total Coliform (Enumeration) SM 9223 B Colilert 18 101.050 008 E. coli (Enumeration) SM 9223 B Colilert 18 101.050 009 Total Coliform P/A SM 9223 B Colisure 101.050 001 E. coli (Enumeration) SM 9223 B Colisure 101.160 001 Enterolect SM 9223 B Colisure 101.170 001 Enterolect SM 9223 B Colisure 102.012 001 Caligania <td< td=""><td>101.020</td><td>004</td><td>Total Coliform (Enumeration)</td><td>SM 9221 B,C</td></td<>	101.020	004	Total Coliform (Enumeration)	SM 9221 B,C
101.020 006 E. coli (Enumeration) SM 9221 B,F 101.050 002 E. coli PA SM 9223 B Collient 101.050 003 Total Coliform (Enumeration) SM 9223 B Collient 101.050 004 E. coli (Enumeration) SM 9223 B Collient 101.050 004 E. coli (Enumeration) SM 9223 B Collient 101.050 005 Total Coliform (Enumeration) SM 9223 B Collient 18 101.050 006 E. coli (Enumeration) SM 9223 B Collient 18 101.050 006 E. coli (Enumeration) SM 9223 B Collient 18 101.050 007 Total Coliform PIA SM 9223 B Collient 18 101.050 009 Total Coliform PIA SM 9223 B Collient 18 101.050 009 Total Coliform PIA SM 9223 B Collistre 101.160 01 E. coli PIA SM 9223 B Collistre 101.150 009 Total Coliform PIA SM 9223 B Collistre 101.160 Interrecocci SM 9223 B Collistre 101.170 001 Entorecocci SM 9223 B Collistre	101.020	005	Fecal Coliform (Enumeration)	SM 9221 B,E
101.050 001 Total Coliform P/A SM 9223 B Coliert 101.050 003 Total Coliform (Enumeration) SM 9223 B Coliert 101.050 004 E. coli (Enumeration) SM 9223 B Coliert 101.050 005 Total Coliform (Enumeration) SM 9223 B Coliert 101.050 006 E. coli (Enumeration) SM 9223 B Coliert 18 101.050 007 Total Coliform P/A SM 9223 B Coliert 18 101.050 006 E. coli (Enumeration) SM 9223 B Coliert 18 101.050 007 Total Coliform P/A SM 9223 B Coliert 18 101.050 008 E. coli (Enumeration) SM 9223 B Coliert 18 101.050 009 Total Coliform P/A SM 9223 B Colisure 101.050 001 E. coli (Enumeration) SM 9223 B Colisure 101.140 001 Enterococi SM 9230 B 101.140 001 Enterococi Enterolert Field of Testing: 102 - Inorganic Chemistry of Drinking Water Inorganic Chemistry of Drinking Water 102.026 001 Calcium	101.020	006	E. coli (Enumeration)	SM 9221 B,F
101.050 002 E. coli P/A SM 9223 B Colilert 101.050 003 Total Coliform (Enumeration) SM 9223 B Colilert 101.050 004 E. coli P/A SM 9223 B Colilert 101.050 005 Total Coliform P/A SM 9223 B Colilert 18 101.050 006 E. coli P/A SM 9223 B Colilert 18 101.050 007 Total Coliform (Enumeration) SM 9223 B Colilert 18 101.050 008 E. coli (Enumeration) SM 9223 B Colilert 18 101.050 009 Total Coliform P/A SM 9223 B Colisure 101.050 009 Total Coliform P/A SM 9223 B Colisure 101.050 010 E. coli P/A SM 9223 B Colisure 101.170 001 Enterococi SM 923 B Colisure 101.170 001 Enterococi Enterolert 102.020 001 Turbidity EPA 180.1 102.026 001 Calcium EPA 200.7 102.026 002 Magnesium EPA 200.7 102.026 005	101.050	001	Total Coliform P/A	SM 9223 B Colilert
101.050 003 Total Coliform (Enumeration) SM 9223 B Colilert 101.050 004 E. coli (Enumeration) SM 9223 B Colilert 101.050 005 Total Coliform P/A SM 9223 B Colilert 18 101.050 006 E. coli (Enumeration) SM 9223 B Colilert 18 101.050 007 Total Coliform (Enumeration) SM 9223 B Colilert 18 101.050 007 Total Coliform (Enumeration) SM 9223 B Colilert 18 101.050 008 E. coli (Enumeration) SM 9223 B Colilert 18 101.050 009 Total Coliform P/A SM 9223 B Colisure 101.050 010 E. coli P/A SM 9223 B Colisure 101.140 01 Enterococci SM 9230 B 101.170 01 Enterococci Enterolert 102.015 01 Hydrogen lon (pH) EPA 150.1 102.026 01 Calcium EPA 200.7 102.026 02 Magnesium EPA 200.7 102.026 004 Silca EPA 200.7 102.026 00	101.050	002	E. coli P/A	SM 9223 B Colilert
101.050 004 E. coli (Enumeration) SM 9223 B Colilert 101.050 005 Total Coliform P/A SM 9223 B Colilert 18 101.050 006 E. coli P/A SM 9223 B Colilert 18 101.050 007 Total Coliform (Enumeration) SM 9223 B Colilert 18 101.050 008 E. coli (Enumeration) SM 9223 B Colilert 18 101.050 009 Total Coliform P/A SM 9223 B Colisure 101.050 010 E. coli (Enumeration) SM 9223 B Colisure 101.050 010 E. coli P/A SM 9223 B Colisure 101.100 010 Enterococci SM 9230 B 101.110 011 Enterococci Enterolert 102.015 001 Hydrogen lon (pH) EPA 150.1 102.020 001 Turbidity EPA 200.7 102.026 001 Calcium EPA 200.7 102.026 003 Potassium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium <td< td=""><td>101.050</td><td>003</td><td>Total Coliform (Enumeration)</td><td>SM 9223 B Colilert</td></td<>	101.050	003	Total Coliform (Enumeration)	SM 9223 B Colilert
101.050 005 Total Coliform P/A SM 9223 B Coliliert 18 101.050 006 E. coli P/A SM 9223 B Coliliert 18 101.050 007 Total Coliform (Enumeration) SM 9223 B Coliliert 18 101.050 008 E. coli (Enumeration) SM 9223 B Coliliert 18 101.050 009 Total Coliform P/A SM 9223 B Colisure 101.050 010 E. coli (Enumeration) SM 9223 B Colisure 101.050 010 E. coli P/A SM 9223 B Colisure 101.170 011 Enterococci SM 9230 B 101.170 001 Enterococci Enterolert 102.015 001 Hydrogen lon (pH) EPA 150.1 102.020 001 Turbidity EPA 200.7 102.026 002 Magnesium EPA 200.7 102.026 003 Potassium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7	101.050	004	E. coli (Enumeration)	SM 9223 B Colilert
101.050 006 E. coli P/A SM 9223 B Colilert 18 101.050 007 Total Coliform (Enumeration) SM 9223 B Colilert 18 101.050 008 E. coli (Enumeration) SM 9223 B Colilert 18 101.050 009 Total Coliform P/A SM 9223 B Colisure 101.050 010 E. coli P/A SM 9223 B Colisure 101.140 001 Enterococci SM 9230 B 101.170 001 Enterococci Enterolert 102.015 001 Hydrogen lon (pH) EPA 150.1 102.020 001 Turbidity EPA 200.7 102.026 002 Magnesium EPA 200.7 102.026 003 Potassium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 006 Hardness (Calculation) EPA 200.7 102.030	101.050	005	Total Coliform P/A	SM 9223 B Colilert 18
101.050 007 Total Coliform (Enumeration) SM 9223 B Coliler 18 101.050 008 E. coli (Enumeration) SM 9223 B Colisure 101.050 009 Total Coliform P/A SM 9223 B Colisure 101.050 010 E. coli P/A SM 9223 B Colisure 101.140 001 Enterococci SM 9230 B 101.170 001 Enterococci Enterolert 102.015 001 Hydrogen lon (pH) EPA 150.1 102.020 001 Turbidity EPA 180.1 102.026 001 Calicum EPA 200.7 102.026 002 Magnesium EPA 200.7 102.026 003 Potassium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 006 Hardness (Calculation) EPA 200.7 102.030 00	101.050	006	E. coli P/A	SM 9223 B Colilert 18
101.050 008 E. coli (Enumeration) SM 9223 B Colisure 101.050 009 Total Coliform P/A SM 9223 B Colisure 101.050 010 E. coli P/A SM 9230 B 101.170 001 Enterococci SM 9230 B 101.170 001 Enterococci Enterolert Field of Testing: 102 - Inorganic Chemistry of Drinking Water 102.015 001 Hydrogen Ion (pH) EPA 150.1 102.020 001 Turbidity EPA 180.1 102.026 001 Calcium EPA 200.7 102.026 002 Magnesium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 006 Hardness (Calculation) EPA 200.7 102.026 006 Hardness (Calculation) EPA 200.7 102.020 001 Bromide	101.050	007	Total Coliform (Enumeration)	SM 9223 B Colilert 18
101.050 009 Total Coliform P/A SM 9223 B Colisure 101.050 010 E. coli P/A SM 9233 B Colisure 101.140 001 Enterococci SM 9230 B 101.170 001 Enterococci Enterolert 102.015 001 Hydrogen lon (pH) EPA 150.1 102.020 001 Turbidity EPA 180.1 102.026 001 Calcium EPA 200.7 102.026 002 Magnesium EPA 200.7 102.026 003 Potassium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 006 Hardness (Calculation) EPA 200.7 102.026 006 Hardness (Calculation) EPA 200.7 102.020 001 Bromide EPA 300.0 102.030 002 Chlorate	101.050	800	E. coli (Enumeration)	SM 9223 B Colilert 18
101.050 010 E. coli P/A SM 9223 B Colisure 101.140 001 Enterococci SM 9230 B 101.170 001 Enterococci Enterolert Field of Testing: 102 - Inorganic Chemistry of Drinking Water 102.015 001 Hydrogen lon (pH) EPA 150.1 102.020 001 Turbidity EPA 180.1 102.026 001 Calcium EPA 200.7 102.026 002 Magnesium EPA 200.7 102.026 003 Potassium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 006 Hardness (Calculation) EPA 300.0 102.030 001	101.050	009	Total Coliform P/A	SM 9223 B Colisure
101.140 001 Enterococci SM 9230 B 101.170 001 Enterococci Enterolert 102.015 001 Hydrogen lon (pH) EPA 150.1 102.020 001 Turbidity EPA 180.1 102.026 001 Calcium EPA 200.7 102.026 002 Magnesium EPA 200.7 102.026 003 Potassium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 004 Silica EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 006 Hardness (Calculation) EPA 200.7 102.030 001 Bromide EPA 300.0 102.030 002 Chlorate EPA 300.0 102.030 003 Chlorite EPA 300.0	101.050	010	E. coli P/A	SM 9223 B Colisure
101.170 001 Enterococci Enterolert 102.015 001 Hydrogen lon (pH) EPA 150.1 102.020 001 Turbidity EPA 180.1 102.026 001 Calcium EPA 200.7 102.026 002 Magnesium EPA 200.7 102.026 003 Potassium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 003 Potassium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 006 Hardness (Calculation) EPA 200.7 102.030 001 Bromide EPA 300.0 102.030 002 Chlorate EPA 300.0 102.030 004 Chlorite EPA 300.0	101.140	001	Enterococci	SM 9230 B
Field of Testing: 102 - Inorganic Chemistry of Drinking Water 102.015 001 Hydrogen lon (pH) EPA 150.1 102.020 001 Turbidity EPA 180.1 102.026 001 Calcium EPA 200.7 102.026 002 Magnesium EPA 200.7 102.026 003 Potassium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 006 Hardness (Calculation) EPA 200.7 102.026 006 Hardness (Calculation) EPA 200.7 102.030 001 Bromide EPA 300.0 102.030 002 Chlorate EPA 300.0 102.030 004 Chlorite EPA 300.0	101.170	001	Enterococci	Enterolert
102.015 001 Hydrogen lon (pH) EPA 150.1 102.020 001 Turbidity EPA 180.1 102.026 001 Calcium EPA 200.7 102.026 002 Magnesium EPA 200.7 102.026 003 Potassium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 004 Silica EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 006 Hardness (Calculation) EPA 200.7 102.030 001 Bromide EPA 300.0 102.030 002 Chlorate EPA 300.0 102.030 003 Chloride EPA 300.0 102.030 004 Chlorite EPA 300.0	Field of	Testing	: 102 - Inorganic Chemistry of Drinking W	ater
102.020 001 Turbidity EPA 180.1 102.026 001 Calcium EPA 200.7 102.026 002 Magnesium EPA 200.7 102.026 003 Potassium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 006 Hardness (Calculation) EPA 200.7 102.026 006 Hardness (Calculation) EPA 200.7 102.030 001 Bromide EPA 300.0 102.030 002 Chlorate EPA 300.0 102.030 003 Chloride EPA 300.0 102.030 004 Chlorite EPA 300.0	102.015	001	Hydrogen Ion (pH)	EPA 150.1
102.026 001 Calcium EPA 200.7 102.026 002 Magnesium EPA 200.7 102.026 003 Potassium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 006 Hardness (Calculation) EPA 200.7 102.030 001 Bromide EPA 300.0 102.030 002 Chlorate EPA 300.0 102.030 003 Chloride EPA 300.0 102.030 004 Chlorite EPA 300.0	102.020	001	Turbidity	EPA 180.1
102.026 002 Magnesium EPA 200.7 102.026 003 Potassium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 006 Hardness (Calculation) EPA 200.7 102.026 006 Hardness (Calculation) EPA 200.7 102.030 001 Bromide EPA 300.0 102.030 002 Chlorate EPA 300.0 102.030 003 Chloride EPA 300.0 102.030 004 Chlorite EPA 300.0	102.026	001	Calcium	EPA 200.7
102.026 003 Potassium EPA 200.7 102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 006 Hardness (Calculation) EPA 200.7 102.030 001 Bromide EPA 300.0 102.030 002 Chlorate EPA 300.0 102.030 003 Chloride EPA 300.0	102.026	002	Magnesium	EPA 200.7
102.026 004 Silica EPA 200.7 102.026 005 Sodium EPA 200.7 102.026 006 Hardness (Calculation) EPA 200.7 102.030 001 Bromide EPA 300.0 102.030 002 Chlorate EPA 300.0 102.030 003 Chloride EPA 300.0 102.030 004 Chlorite EPA 300.0	102.026	003	Potassium	EPA 200.7
102.026 005 Sodium EPA 200.7 102.026 006 Hardness (Calculation) EPA 200.7 102.030 001 Bromide EPA 300.0 102.030 002 Chlorate EPA 300.0 102.030 003 Chloride EPA 300.0 102.030 004 Chlorite EPA 300.0	102.026	004	Silica	EPA 200.7
102.026 006 Hardness (Calculation) EPA 200.7 102.030 001 Bromide EPA 300.0 102.030 002 Chlorate EPA 300.0 102.030 003 Chloride EPA 300.0 102.030 004 Chlorite EPA 300.0	102.026	005	Sodium	EPA 200.7
102.030 001 Bromide EPA 300.0 102.030 002 Chlorate EPA 300.0 102.030 003 Chloride EPA 300.0 102.030 004 Chlorite EPA 300.0	102.026	006	Hardness (Calculation)	EPA 200.7
102.030 002 Chlorate EPA 300.0 102.030 003 Chloride EPA 300.0 102.030 004 Chlorite EPA 300.0	102.030	001	Bromide	EPA 300.0
102.030 003 Chloride EPA 300.0 102.030 004 Chlorite EPA 300.0	102.030	002	Chlorate	EPA 300.0
102.030 004 Chlorite EPA 300.0	102.030	003	Chloride	EPA 300.0
	102.030	004	Chlorite	EPA 300.0

As of 6/20/2019, this list supersedes all previous lists for this certificate number. Customers: Please verify the current accreditation standing with the State.

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102.030	006	Nitrate (as N)	EPA 300.0
102.030	007	Nitrite (as N)	EPA 300.0
102.030	009	Sulfate (as SO4)	EPA 300.0
102.040	001	Bromide	EPA 300.1
102.040	002	Chlorite	EPA 300.1
102.040	003	Chlorate	EPA 300.1
102.040	004	Bromate	EPA 300.1
102.040	008	Nitrite (as N)	EPA 300.1
102.044	001	Bromate	EPA 317.0
102.045	001	Perchlorate	EPA 314.0
102.047	001	Perchlorate	EPA 331.0
102.050	001	Cyanide, Total	EPA 335.4
102.060	001	Nitrate (as N) (Calculation)	EPA 353.2
102.061	001	Nitrite (as N)	EPA 353.2
102.070	001	Phosphate,Ortho (as P)	EPA 365.1
102.095	001	Turbidity	SM 2130 B-2001
102.100	001	Alkalinity	SM 2320 B-1997
102.120	001	Hardness (Calculation)	SM 2340 B-1997
102.130	001	Specific Conductance	SM 2510 B-1997
102.140	001	Residue, Filterable TDS	SM 2540 C-1997
102.175	001	Chlorine, Free	SM 4500-Cl G-2000
102.175	002	Chlorine, Total Residual	SM 4500-Cl G-2000
102.180	001	Chlorine Dioxide	SM 4500-CIO2 D-2000
102.191	001	Cyanide, Total	SM 4500-CN F-1999
102.192	001	Cyanide, Amenable	SM 4500-CN G-1999
102.200	001	Fluoride	SM 4500-F C-2011
102.203	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000
102.240	001	Phosphate,Ortho (as P)	SM 4500-P E-1999
102.242	001	Silica	SM 4500-SiO2 C-1997
102.262	001	Organic Carbon-Total (TOC)	SM 5310 C-2000
102.263	001	Dissolved Organic Carbon (DOC)	SM 5310 C-2000
102.270	001	Surfactants	SM 5540 C-2000
102.280	001	UV254	SM 5910 B-2011
Field of	Testing	: 103 - Toxic Chemical Elements of Drinki	ng Water
103.130	001	Aluminum	EPA 200.7
103.130	003	Barium	EPA 200.7
103.130	004	Beryllium	EPA 200.7
103.130	005	Cadmium	EPA 200.7
103.130	007	Chromium	EPA 200.7
103.130	800	Copper	EPA 200.7
103.130	009	Iron	EPA 200.7
103.130	011	Manganese	EPA 200.7

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105.150	012	Nickel	EPA 200.7
103.130	015	Silver	EPA 200.7
103.130	017	Zinc	EPA 200.7
103.130	018	Boron	EPA 200.7
103.140	001	Aluminum	EPA 200.8
103.140	002	Antimony	EPA 200.8
103.140	003	Arsenic	EPA 200.8
103.140	004	Barium	EPA 200.8
103.140	005	Beryllium	EPA 200.8
103.140	006	Cadmium	EPA 200.8
103.140	007	Chromium	EPA 200.8
103.140	800	Copper	EPA 200.8
103.140	009	Lead	EPA 200.8
103.140	010	Manganese	EPA 200.8
103.140	011	Mercury	EPA 200.8
103.140	012	Nickel	EPA 200.8
103.140	013	Selenium	EPA 200.8
103.140	014	Silver	EPA 200.8
103.140	015	Thallium	EPA 200.8
103.140	016	Zinc	EPA 200.8
103.140	018	Vanadium	EPA 200.8
103.160	001	Mercury	EPA 245.1
103.301	001	Asbestos	EPA 100.2
102 210	001	Chromium (VI)	EPA 218.6
103.310	001		
103.311	001	Chromium (VI)	EPA 218.7
103.311 Field of	001 001 Testing	Chromium (VI) : 104 - Volatile Organic Chemistry of Drin	EPA 218.7 king Water
103.311 Field of 104.030	001 001 Testing 001	Chromium (VI) : 104 - Volatile Organic Chemistry of Drin 1,2-Dibromoethane (EDB, Ethylene Dibromide)	EPA 218.7 king Water EPA 504.1
103.310 103.311 Field of 104.030 104.030	001 001 Testing 001 002	Chromium (VI) : 104 - Volatile Organic Chemistry of Drini 1,2-Dibromoethane (EDB, Ethylene Dibromide) 1,2-Dibromo-3-chloropropane (DBCP)	EPA 218.7 king Water EPA 504.1 EPA 504.1
103.310 103.311 Field of 104.030 104.030 104.035	001 001 Testing 001 002 001	Chromium (VI) : 104 - Volatile Organic Chemistry of Drini 1,2-Dibromoethane (EDB, Ethylene Dibromide) 1,2-Dibromo-3-chloropropane (DBCP) 1,2,3-Trichloropropane (TCP)	EPA 218.7 king Water EPA 504.1 EPA 504.1 SRL 524M-TCP
IO3.310 103.311 Field of 104.030 104.035 104.040	001 001 Testing 001 002 001 000	Chromium (VI) : 104 - Volatile Organic Chemistry of Drini 1,2-Dibromoethane (EDB, Ethylene Dibromide) 1,2-Dibromo-3-chloropropane (DBCP) 1,2,3-Trichloropropane (TCP) Volatile Organic Compounds	EPA 218.7 king Water EPA 504.1 EPA 504.1 SRL 524M-TCP EPA 524.2
Io3.310 103.311 Field of 104.030 104.035 104.040 104.040	001 001 Testing 001 002 001 000 001	Chromium (VI) : 104 - Volatile Organic Chemistry of Drini 1,2-Dibromoethane (EDB, Ethylene Dibromide) 1,2-Dibromo-3-chloropropane (DBCP) 1,2,3-Trichloropropane (TCP) Volatile Organic Compounds Benzene	EPA 218.7 king Water EPA 504.1 EPA 504.1 SRL 524M-TCP EPA 524.2 EPA 524.2
IO3.310 103.311 Field of 104.030 104.035 104.040 104.040	001 001 Testing 001 002 001 000 001 007	Chromium (VI) : 104 - Volatile Organic Chemistry of Drini 1,2-Dibromoethane (EDB, Ethylene Dibromide) 1,2-Dibromo-3-chloropropane (DBCP) 1,2,3-Trichloropropane (TCP) Volatile Organic Compounds Benzene n-Butylbenzene	EPA 218.7 king Water EPA 504.1 EPA 504.1 SRL 524M-TCP EPA 524.2 EPA 524.2 EPA 524.2
Io3.310 103.311 Field of 104.030 104.030 104.035 104.040 104.040 104.040 104.040	001 001 Testing 001 002 001 000 001 007 008	Chromium (VI) : 104 - Volatile Organic Chemistry of Drini 1,2-Dibromoethane (EDB, Ethylene Dibromide) 1,2-Dibromo-3-chloropropane (DBCP) 1,2,3-Trichloropropane (TCP) Volatile Organic Compounds Benzene n-Butylbenzene sec-Butylbenzene	EPA 218.7 king Water EPA 504.1 EPA 504.1 SRL 524M-TCP EPA 524.2 EPA 524.2 EPA 524.2 EPA 524.2
IO3.310 103.311 Field of 104.030 104.035 104.040 104.040 104.040 104.040 104.040 104.040	001 001 Testing 001 002 001 000 001 007 008 009	Chromium (VI) : 104 - Volatile Organic Chemistry of Drini 1,2-Dibromoethane (EDB, Ethylene Dibromide) 1,2-Dibromo-3-chloropropane (DBCP) 1,2,3-Trichloropropane (TCP) Volatile Organic Compounds Benzene n-Butylbenzene sec-Butylbenzene tert-Butylbenzene	EPA 218.7 king Water EPA 504.1 EPA 504.1 SRL 524M-TCP EPA 524.2 EPA 524.2 EPA 524.2 EPA 524.2 EPA 524.2 EPA 524.2
Io3.310 103.311 Field of 104.030 104.030 104.030 104.030 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040	001 001 002 001 002 001 000 001 007 008 009 010	Chromium (VI) : 104 - Volatile Organic Chemistry of Drini 1,2-Dibromoethane (EDB, Ethylene Dibromide) 1,2-Dibromo-3-chloropropane (DBCP) 1,2,3-Trichloropropane (TCP) Volatile Organic Compounds Benzene n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon Tetrachloride	EPA 218.7 king Water EPA 504.1 EPA 504.1 SRL 524M-TCP EPA 524.2 EPA 524.2 EPA 524.2 EPA 524.2 EPA 524.2 EPA 524.2 EPA 524.2 EPA 524.2
IO3.310 103.311 Field of 104.030 104.030 104.030 104.030 104.035 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040	001 001 Testing 001 002 001 002 001 002 001 002 001 000 001 000 001 007 008 009 010 011	Chromium (VI) : 104 - Volatile Organic Chemistry of Drin 1,2-Dibromoethane (EDB, Ethylene Dibromide) 1,2-Dibromo-3-chloropropane (DBCP) 1,2,3-Trichloropropane (TCP) Volatile Organic Compounds Benzene n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon Tetrachloride Chlorobenzene	EPA 218.7 king Water EPA 504.1 EPA 504.1 SRL 524M-TCP EPA 524.2
IO3.310 103.311 Field of 104.030 104.030 104.030 104.030 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040	001 001 001 002 001 002 001 002 001 002 001 002 001 000 001 000 001 007 008 009 010 011 015	Chromium (VI) : 104 - Volatile Organic Chemistry of Drini 1,2-Dibromoethane (EDB, Ethylene Dibromide) 1,2-Dibromo-3-chloropropane (DBCP) 1,2,3-Trichloropropane (TCP) Volatile Organic Compounds Benzene n-Butylbenzene sec-Butylbenzene tert-Butylbenzene tert-Butylbenzene Carbon Tetrachloride Chlorobenzene 2-Chlorotoluene	EPA 218.7 king Water EPA 504.1 EPA 504.1 SRL 524M-TCP EPA 524.2
IO3.310 103.311 Field of 104.030 104.030 104.030 104.030 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040	001 001 001 002 001 002 001 002 001 002 001 002 001 000 001 000 001 007 008 009 010 011 015 016	Chromium (VI) : 104 - Volatile Organic Chemistry of Drin 1,2-Dibromoethane (EDB, Ethylene Dibromide) 1,2-Dibromo-3-chloropropane (DBCP) 1,2,3-Trichloropropane (TCP) Volatile Organic Compounds Benzene n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon Tetrachloride Chlorobenzene 2-Chlorotoluene 4-Chlorotoluene	EPA 218.7 king Water EPA 504.1 EPA 504.1 SRL 524M-TCP EPA 524.2
IO3.310 103.311 Field of 104.030 104.030 104.030 104.030 104.030 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040	001 001 001 001 001 002 001 002 001 002 001 002 001 000 001 000 001 007 008 009 010 0111 015 016 019	Chromium (VI) : 104 - Volatile Organic Chemistry of Drini 1,2-Dibromoethane (EDB, Ethylene Dibromide) 1,2-Dibromo-3-chloropropane (DBCP) 1,2,3-Trichloropropane (TCP) Volatile Organic Compounds Benzene n-Butylbenzene sec-Butylbenzene tert-Butylbenzene tert-Butylbenzene Carbon Tetrachloride Chlorobenzene 2-Chlorotoluene 4-Chlorotoluene 1,3-Dichlorobenzene	EPA 218.7 king Water EPA 504.1 EPA 504.1 SRL 524M-TCP EPA 524.2
IO3.310 103.311 Field of 104.030 104.030 104.030 104.030 104.030 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040	001 001 001 001 002 001 002 001 002 001 002 001 002 001 000 001 000 001 007 008 009 010 011 015 016 019 020	Chromium (VI) : 104 - Volatile Organic Chemistry of Drin 1,2-Dibromoethane (EDB, Ethylene Dibromide) 1,2-Dibromo-3-chloropropane (DBCP) 1,2,3-Trichloropropane (TCP) Volatile Organic Compounds Benzene n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon Tetrachloride Chlorobenzene 2-Chlorotoluene 1,3-Dichlorobenzene 1,2-Dichlorobenzene	EPA 218.7 king Water EPA 504.1 EPA 504.1 SRL 524M-TCP EPA 524.2
IO3.310 103.311 Field of 104.030 104.030 104.030 104.030 104.030 104.030 104.030 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040 104.040	001 001 001 002 001 002 001 002 001 002 001 002 001 000 001 000 001 000 001 000 001 007 008 009 010 011 015 016 019 020 021	Chromium (VI) : 104 - Volatile Organic Chemistry of Drini 1,2-Dibromoethane (EDB, Ethylene Dibromide) 1,2-Dibromo-3-chloropropane (DBCP) 1,2,3-Trichloropropane (TCP) Volatile Organic Compounds Benzene n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon Tetrachloride Chlorobenzene 2-Chlorotoluene 4-Chlorotoluene 1,3-Dichlorobenzene 1,2-Dichlorobenzene 1,4-Dichlorobenzene	EPA 218.7 king Water EPA 504.1 EPA 504.1 SRL 524M-TCP EPA 524.2 EPA 524.2

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104.040	023	1,1-Dichloroethane	EPA 524.2
104.040	024	1,2-Dichloroethane	EPA 524.2
104.040	025	1,1-Dichloroethene (1,1-Dichloroethylene)	EPA 524.2
104.040	026	cis-1,2-Dichloroethene	EPA 524.2
104.040	027	trans-1,2-Dichloroethene	EPA 524.2
104.040	028	Dichloromethane (Methylene Chloride)	EPA 524.2
104.040	029	1,2-Dichloropropane	EPA 524.2
104.040	033	cis-1,3-Dichloropropene	EPA 524.2
104.040	034	trans-1,3-Dichloropropene	EPA 524.2
104.040	035	Ethylbenzene	EPA 524.2
104.040	037	lsopropylbenzene	EPA 524.2
104.040	039	Naphthalene	EPA 524.2
104.040	041	N-propylbenzene	EPA 524.2
104.040	042	Styrene	EPA 524.2
104.040	043	1,1,1,2-Tetrachloroethane	EPA 524.2
104.040	044	1,1,2,2-Tetrachloroethane	EPA 524.2
104.040	045	Tetrachloroethylene (Tetrachloroethene)	EPA 524.2
104.040	046	Toluene	EPA 524.2
104.040	047	1,2,3-Trichlorobenzene	EPA 524.2
104.040	048	1,2,4-Trichlorobenzene	EPA 524.2
104.040	049	1,1,1-Trichloroethane	EPA 524.2
104.040	050	1,1,2-Trichloroethane	EPA 524.2
104.040	051	Trichloroethene	EPA 524.2
104.040	052	Trichlorofluoromethane	EPA 524.2
104.040	054	1,2,4-Trimethylbenzene	EPA 524.2
104.040	055	1,3,5-Trimethylbenzene	EPA 524.2
104.040	056	Vinyl Chloride	EPA 524.2
104.040	057	Xylenes, Total	EPA 524.2
104.040	061	Carbon Disulfide	EPA 524.2
104.040	062	Methyl Isobutyl Ketone	EPA 524.2
104.045	000	Trihalomethanes, Total	EPA 524.2
104.045	001	Bromodichloromethane	EPA 524.2
104.045	002	Bromoform	EPA 524.2
104.045	003	Chloroform	EPA 524.2
104.045	004	Dibromochloromethane	EPA 524.2
104.050	000	Gasoline Additives	EPA 524.2
104.050	002	Methyl tert-butyl Ether (MTBE)	EPA 524.2
104.050	003	tert-Amyl Methyl Ether (TAME)	EPA 524.2
104.050	004	Ethyl tert-butyl Ether (ETBE)	EPA 524.2
104.050	005	Trichlorotrifluoroethane	EPA 524.2
104.050	006	tert-Butyl Alcohol (TBA)	EPA 524.2
Field of 1	Festing :	105 - Semi-volatile Organic Chemistry o	f Drinking Water

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105.010	000	Organochlorine Pesticides and PCBs	EPA 505
105.010	002	Alachlor	EPA 505
105.010	004	Chlordane	EPA 505
105.010	006	Endrin	EPA 505
105.010	007	Heptachlor	EPA 505
105.010	800	Heptachlor Epoxide	EPA 505
105.010	011	Lindane (HCH-gamma)	EPA 505
105.010	012	Methoxychlor	EPA 505
105.010	014	Toxaphene	EPA 505
105.010	015	PCBs as Aroclors (screen)	EPA 505
105.083	000	Chlorinated Acids	EPA 515.4
105.083	001	2,4-D	EPA 515.4
105.083	002	Dinoseb	EPA 515.4
105.083	003	Pentachlorophenol	EPA 515.4
105.083	004	Picloram	EPA 515.4
105.083	005	2,4,5-TP (Silvex)	EPA 515.4
105.083	006	Dalapon	EPA 515.4
105.083	007	Bentazon	EPA 515.4
105.083	800	Dicamba	EPA 515.4
105.090	000	Semi-volatile Organic Compounds	EPA 525.2
105.090	001	Alachlor	EPA 525.2
105.090	002	Aldrin	EPA 525.2
105.090	003	Atrazine	EPA 525.2
105.090	004	Benzo(a)pyrene	EPA 525.2
105.090	005	Butachlor	EPA 525.2
105.090	006	Chlordane	EPA 525.2
105.090	007	Dieldrin	EPA 525.2
105.090	800	Di(2-ethylhexyl) Adipate	EPA 525.2
105.090	009	Di(2-ethylhexyl) Phthalate	EPA 525.2
105.090	013	Endrin	EPA 525.2
105.090	014	Heptachlor	EPA 525.2
105.090	015	Heptachlor Epoxide	EPA 525.2
105.090	016	Hexachlorobenzene	EPA 525.2
105.090	017	Hexachlorocyclopentadiene	EPA 525.2
105.090	018	Lindane (HCH-gamma)	EPA 525.2
105.090	019	Methoxychlor	EPA 525.2
105.090	022	Molinate	EPA 525.2
105.090	025	Simazine	EPA 525.2
105.090	028	Thiobencarb	EPA 525.2
105.101	000	Carbamates	EPA 531.2
105.101	001	Carbofuran	EPA 531.2
105.101	002	Oxamyl	EPA 531.2

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	003	Aldicarb	EPA 531.2
105.101	004	Aldicarb Sulfone	EPA 531.2
105.101	005	Aldicarb Sulfoxide	EPA 531.2
105.101	006	Carbaryl	EPA 531.2
105.101	007	3-Hydroxycarbofuran	EPA 531.2
105.101	800	Methomyl	EPA 531.2
105.105	001	N-ethyl perfluorooctanesulfonamidoacetic Acid (NE	tEPA 537 Rev 1.1
105.105	002	N-methyl perfluorooctanesulfonamidoacetic Acid (N	M2PA 537 Rev 1.1
105.105	003	Perfluorobutanesulfonic Acid (PFBS)	EPA 537 Rev 1.1
105.105	004	Perfluorodecanoic Acid (PFDA)	EPA 537 Rev 1.1
105.105	005	Perfluorododecanoic Acid (PFDoA)	EPA 537 Rev 1.1
105.105	006	Perfluoroheptanoic Acid (PFHpA)	EPA 537 Rev 1.1
105.105	007	Perfluorohexanesulfonic Acid (PFHxS)	EPA 537 Rev 1.1
105.105	800	Perfluorohexanoic Acid (PFHxA)	EPA 537 Rev 1.1
105.105	009	Perfluorononanoic Acid (PFNA)	EPA 537 Rev 1.1
105.105	010	Perfluorooctanoic Acid (PFOA)	EPA 537 Rev 1.1
105.105	011	Perfluorooctylsulfonic Acid (PFOS)	EPA 537 Rev 1.1
105.105	012	Perfluorotetradecanoic Acid (PFTA)	EPA 537 Rev 1.1
105.105	013	Perfluorotridecanoic Acid (PFTrDA)	EPA 537 Rev 1.1
105.105	014	Perfluoroundecanoic Acid (PFUnA)	EPA 537 Rev 1.1
105.106	000	Per- and Polyfluorinated Alkyl Substances (PFAS)	EPA 537.1
105.120	001	Glyphosate	EPA 547
105.140	001	Endothall	EPA 548.1
105.140 105.150	001 001	Endothall Diquat	EPA 548.1 EPA 549.2
105.140 105.150 105.170	001 001 010	Endothall Diquat 1,2-Dibromo-3-chloropropane (DBCP)	EPA 548.1 EPA 549.2 EPA 551.1
105.140 105.150 105.170 105.170	001 001 010 011	Endothall Diquat 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (EDB, Ethylene Dibromide)	EPA 548.1 EPA 549.2 EPA 551.1 EPA 551.1
105.140 105.150 105.170 105.170 105.175	001 001 010 011 001	Endothall Diquat 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (EDB, Ethylene Dibromide) Bromodichloromethane	EPA 548.1 EPA 549.2 EPA 551.1 EPA 551.1 EPA 551.1
105.140 105.150 105.170 105.170 105.175 105.175	001 001 010 011 001 002	Endothall Diquat 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (EDB, Ethylene Dibromide) Bromodichloromethane Bromoform	EPA 548.1 EPA 549.2 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1
105.140 105.150 105.170 105.170 105.175 105.175 105.175	001 001 010 011 001 002 003	Endothall Diquat 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (EDB, Ethylene Dibromide) Bromodichloromethane Bromoform Chloroform	EPA 548.1 EPA 549.2 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1
105.140 105.150 105.170 105.170 105.175 105.175 105.175 105.175	001 001 010 011 001 002 003 004	Endothall Diquat 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (EDB, Ethylene Dibromide) Bromodichloromethane Bromoform Chloroform Dibromochloromethane	EPA 548.1 EPA 549.2 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1
105.140 105.150 105.170 105.175 105.175 105.175 105.175 105.175 105.175	001 001 010 011 001 002 003 003 004 005	Endothall Diquat 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (EDB, Ethylene Dibromide) Bromodichloromethane Bromoform Chloroform Dibromochloromethane Trihalomethanes	EPA 548.1 EPA 549.2 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1
105.140 105.150 105.170 105.170 105.175 105.175 105.175 105.175 105.175 105.175	001 010 011 001 001 002 003 004 005 001	Endothall Diquat 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (EDB, Ethylene Dibromide) Bromodichloromethane Bromoform Chloroform Dibromochloromethane Trihalomethanes Bromoacetic Acid	EPA 548.1 EPA 549.2 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 SM 6251 B
105.140 105.150 105.170 105.170 105.175 105.175 105.175 105.175 105.175 105.190 105.190	001 001 010 001 002 003 004 005 001 003	Endothall Diquat 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (EDB, Ethylene Dibromide) Bromodichloromethane Bromoform Chloroform Dibromochloromethane Trihalomethanes Bromoacetic Acid Chloroacetic Acid	EPA 548.1 EPA 549.2 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 SM 6251 B SM 6251 B
105.140 105.170 105.170 105.175 105.175 105.175 105.175 105.175 105.175 105.190 105.190	001 010 011 001 002 003 004 005 001 003 005	Endothall Diquat 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (EDB, Ethylene Dibromide) Bromodichloromethane Bromoform Chloroform Dibromochloromethane Trihalomethanes Bromoacetic Acid Chloroacetic Acid	EPA 548.1 EPA 549.2 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 SM 6251 B SM 6251 B
105.140 105.150 105.170 105.175 105.175 105.175 105.175 105.175 105.175 105.175 105.175 105.175 105.175 105.175 105.175 105.190 105.190 105.190 105.190 105.190 105.190	001 010 011 001 002 003 004 005 001 003 005 005 005	Endothall Diquat 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (EDB, Ethylene Dibromide) Bromodichloromethane Bromoform Chloroform Dibromochloromethane Trihalomethanes Bromoacetic Acid Chloroacetic Acid Dibromoacetic Acid	EPA 548.1 EPA 549.2 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 SM 6251 B SM 6251 B SM 6251 B
105.140 105.170 105.170 105.175 105.175 105.175 105.175 105.175 105.175 105.190 105.190 105.190 105.190	001 010 011 001 002 003 004 005 001 003 005 006 007	Endothall Diquat 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (EDB, Ethylene Dibromide) Bromodichloromethane Bromoform Chloroform Dibromochloromethane Trihalomethanes Bromoacetic Acid Chloroacetic Acid Dibromoacetic Acid Dibromoacetic Acid	EPA 548.1 EPA 549.2 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 SM 6251 B SM 6251 B SM 6251 B SM 6251 B
105.140 105.170 105.170 105.175 105.175 105.175 105.175 105.175 105.175 105.190 105.190 105.190 105.190 105.190	001 010 011 001 002 003 004 005 001 005 005 005 005 005 006 007 008	Endothall Diquat 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (EDB, Ethylene Dibromide) Bromodichloromethane Bromoform Chloroform Dibromochloromethane Trihalomethanes Bromoacetic Acid Chloroacetic Acid Dibromoacetic Acid Dibromoacetic Acid Dichloroacetic Acid Haloacetic Acids (HAA5)	EPA 548.1 EPA 549.2 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 SM 6251 B SM 6251 B SM 6251 B SM 6251 B SM 6251 B SM 6251 B
105.140 105.170 105.170 105.175 105.175 105.175 105.175 105.175 105.175 105.175 105.175 105.175 105.175 105.190 105.190 105.190 105.190 105.190 105.190 105.190 105.190 105.190	001 010 011 001 002 003 004 005 001 005 005 005 006 007 008 008 010	Endothall Diquat 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (EDB, Ethylene Dibromide) Bromodichloromethane Bromoform Chloroform Dibromochloromethane Trihalomethanes Bromoacetic Acid Chloroacetic Acid Dibromoacetic Acid Dibromoacetic Acid Dibromoacetic Acid Haloacetic Acids (HAA5) Chlorinated Herbicides	EPA 548.1 EPA 549.2 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 SM 6251 B SM 6251 B SM 6251 B SM 6251 B SM 6251 B SM 6251 B SM 6251 B
105.140 105.170 105.170 105.175 105.175 105.175 105.175 105.175 105.175 105.190 105.190 105.190 105.190 105.190 105.190 105.190	001 010 011 001 002 003 004 005 001 005 005 005 005 005 005 005 005	Endothall Diquat 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (EDB, Ethylene Dibromide) Bromodichloromethane Bromoform Chloroform Dibromochloromethane Trihalomethanes Bromoacetic Acid Chloroacetic Acid Dibromoacetic Acid Dibromoacetic Acid Dibromoacetic Acid Haloacetic Acids (HAA5) Chlorinated Herbicides	EPA 548.1 EPA 549.2 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 SM 6251 B SM 6251 B
105.140 105.170 105.170 105.175 105.175 105.175 105.175 105.175 105.175 105.190 105.190 105.190 105.190 105.190 105.190 105.191 105.201	001 010 011 002 003 004 005 004 005 005 005 005 005 005 006 007 008 007 008 007 008 007	Endothall Diquat 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (EDB, Ethylene Dibromide) Bromodichloromethane Bromoform Chloroform Dibromochloromethane Trihalomethanes Bromoacetic Acid Chloroacetic Acid Chloroacetic Acid Dichloroacetic Acid Dichloroacetic Acid Haloacetic Acids (HAA5) Chlorinated Herbicides Haloacetic Acids (HAA5)	EPA 548.1 EPA 549.2 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 EPA 551.1 SM 6251 B SM 6251 B
105.140 105.170 105.170 105.175 105.175 105.175 105.175 105.175 105.175 105.175 105.175 105.175 105.175 105.190 105.190 105.190 105.190 105.190 105.190 105.190 105.190 105.190 105.190 105.190 105.190 105.190 105.190 105.190 105.190 105.201 105.2201	001 011 011 002 003 004 005 001 005 005 005 005 005 006 007 008 007 008 007 008 010 001 001 001	Endothall Diquat 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (EDB, Ethylene Dibromide) Bromodichloromethane Bromoform Chloroform Dibromochloromethane Trihalomethanes Bromoacetic Acid Chloroacetic Acid Dibromoacetic Acid Dibromoacetic Acid Dibromoacetic Acid Dichloroacetic Acid Haloacetic Acids (HAA5) Chlorinated Herbicides Haloacetic Acids (HAA5) Haloacetic Acids (HAA5)	EPA 548.1 EPA 549.2 EPA 551.1 SM 6251 B EPA 552.3

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106.010	001	Gross Alpha	EPA 900.0
106.010	002	Gross Beta	EPA 900.0
106.092	001	Uranium	EPA 200.8
106.270	001	Gross Alpha	SM 7110 C
106.610	001	Radon-222	SM 7500-Rn
106.651	001	Radium-226	Georgia Inst. of Tech. rev 1.2
106.651	002	Radium-228	Georgia Inst. of Tech. rev 1.2
Field of	Testing	: 107 - Microbiology of Wastewater	
107.010	001	Heterotrophic Bacteria	SM 9215 B
107.020	002	Total Coliform	SM 9221 B-2006
107.030	002	Total Coliform with Chlorine Present	SM 9221 B-2006
107.040	002	Fecal Coliform (Enumeration)	SM 9221 C,E-2006
107.050	002	Fecal Coliform with Chlorine Present	SM 9221 C,E-2006
107.100	002	Fecal Streptococci	SM 9230 B-2007
107.242	001	Enterococci	Enterolert
107.245	001	E. coli (Enumeration)	SM 9223 B Colilert 18
107.245	002	E. coli (Enumeration)	SM 9223 B Colilert
107.247	001	E. coli (Enumeration)	SM 9221 B,F-2006
Field of	Testing	: 108 - Inorganic Chemistry of Wastewate	r
108.020	001	Specific Conductance	EPA 120.1
108.090	001	Residue, Volatile	EPA 160.4
108.110	001	Turbidity	EPA 180.1
108.110 108.112	001 001	Turbidity Boron	EPA 180.1 EPA 200.7
108.110 108.112 108.112	001 001 002	Turbidity Boron Calcium	EPA 180.1 EPA 200.7 EPA 200.7
108.110 108.112 108.112 108.112	001 001 002 003	Turbidity Boron Calcium Hardness (Calculation)	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7
108.110 108.112 108.112 108.112 108.112	001 001 002 003 004	Turbidity Boron Calcium Hardness (Calculation) Magnesium	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7
108.110 108.112 108.112 108.112 108.112 108.112 108.112	001 002 003 004 005	Turbidity Boron Calcium Hardness (Calculation) Magnesium Potassium	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7
108.110 108.112 108.112 108.112 108.112 108.112 108.112 108.112	001 002 003 004 005 006	Turbidity Boron Calcium Hardness (Calculation) Magnesium Potassium Silica, Dissolved	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7
108.110 108.112 108.112 108.112 108.112 108.112 108.112 108.112 108.112	001 002 003 004 005 006 007	Turbidity Boron Calcium Hardness (Calculation) Magnesium Potassium Silica, Dissolved Sodium	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7
108.110 108.112 108.112 108.112 108.112 108.112 108.112 108.112 108.12	001 002 003 004 005 006 007 001	Turbidity Boron Calcium Hardness (Calculation) Magnesium Potassium Silica, Dissolved Sodium Bromide	EPA 180.1 EPA 200.7
108.110 108.112 108.112 108.112 108.112 108.112 108.112 108.112 108.120 108.120	001 002 003 004 005 006 007 001 002	Turbidity Boron Calcium Hardness (Calculation) Magnesium Potassium Silica, Dissolved Sodium Bromide Chloride	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 300.0 EPA 300.0
108.110 108.112 108.112 108.112 108.112 108.112 108.112 108.112 108.120 108.120 108.120	001 002 003 004 005 006 007 007 001 002 008	Turbidity Boron Calcium Hardness (Calculation) Magnesium Potassium Silica, Dissolved Sodium Bromide Chloride Sulfate (as SO4)	EPA 180.1 EPA 200.7 EPA 300.0 EPA 300.0
108.110 108.112 108.112 108.112 108.112 108.112 108.112 108.112 108.120 108.120 108.120 108.120	001 002 003 004 005 006 007 001 001 002 008 008	Turbidity Boron Calcium Hardness (Calculation) Magnesium Potassium Silica, Dissolved Sodium Bromide Chloride Sulfate (as SO4) Nitrate (as N)	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0
108.110 108.112 108.112 108.112 108.112 108.112 108.112 108.112 108.120 108.120 108.120 108.120	001 002 003 004 005 006 007 007 001 002 008 012 013	Turbidity Boron Calcium Hardness (Calculation) Magnesium Potassium Silica, Dissolved Sodium Bromide Chloride Sulfate (as SO4) Nitrate (as N) Nitrate N)	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0
108.110 108.112 108.112 108.112 108.112 108.112 108.112 108.112 108.120 108.120 108.120 108.120 108.120	001 002 003 004 005 006 007 001 002 008 002 008 012 013 014	Turbidity Boron Calcium Hardness (Calculation) Magnesium Potassium Silica, Dissolved Sodium Bromide Chloride Sulfate (as SO4) Nitrate (as N) Nitrate.Nitrite (as N) Nitrite (as N)	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0
108.110 108.112 108.112 108.112 108.112 108.112 108.112 108.112 108.120 108.120 108.120 108.120 108.120 108.120	001 002 003 004 005 006 007 001 002 008 012 013 014 001	Turbidity Boron Calcium Hardness (Calculation) Magnesium Potassium Silica, Dissolved Sodium Bromide Chloride Sulfate (as SO4) Nitrate (as N) Nitrate (as N) Nitrate (as N) Nitrite (as N)	EPA 180.1 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0
108.110 108.112 108.112 108.112 108.112 108.112 108.112 108.120 108.120 108.120 108.120 108.120 108.120 108.120 108.120 108.120	001 002 003 004 005 006 007 001 002 008 012 013 014 001	Turbidity Boron Calcium Hardness (Calculation) Magnesium Potassium Silica, Dissolved Sodium Bromide Chloride Sulfate (as SO4) Nitrate (as N) Nitrate (as N) Nitrate (as N) Cyanide, Total Ammonia (as N)	EPA 180.1 EPA 200.7 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.1 EPA 300.1
108.110 108.112 108.112 108.112 108.112 108.112 108.112 108.112 108.120 108.120 108.120 108.120 108.120 108.120 108.120 108.120 108.120 108.209 108.211	001 002 003 004 005 006 007 001 002 008 012 013 014 001 001 001 001	Turbidity Boron Calcium Hardness (Calculation) Magnesium Potassium Silica, Dissolved Sodium Bromide Chloride Sulfate (as SO4) Nitrate (as N) Nitrate (as N) Nitrite (as N) Kitrite (as N) Kitrite (as N) Kjeldahl Nitrogen,Total (as N)	EPA 180.1 EPA 200.7 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.1 EPA 300.2 EPA 300.1 EPA 351.4
108.110 108.112 108.112 108.112 108.112 108.112 108.112 108.112 108.120 108.120 108.120 108.120 108.120 108.120 108.120 108.120 108.120 108.120 108.211 108.232	001 002 003 004 005 006 007 001 002 008 012 013 014 001 001 001 002 002 003	Turbidity Boron Calcium Hardness (Calculation) Magnesium Potassium Silica, Dissolved Sodium Bromide Chloride Sulfate (as SO4) Nitrate (as N) Nitrate (as N) Nitrate (as N) Kitrite (as N) Kjeldahl Nitrogen, Total (as N) Nitrate-Nitrite (as N)	EPA 180.1 EPA 200.7 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.0 EPA 300.1 EPA 335.4 EPA 351.2 EPA 353.2
108.110 108.112 108.112 108.112 108.112 108.112 108.112 108.112 108.120 108.120 108.120 108.120 108.120 108.120 108.120 108.120 108.209 108.211 108.232	001 002 003 004 005 006 007 001 002 008 012 013 014 014 001 001 001 001 001 001 002 003 003	Turbidity Boron Calcium Hardness (Calculation) Magnesium Potassium Silica, Dissolved Sodium Bromide Chloride Sulfate (as SO4) Nitrate (as N) Nitrate Nitrite (as N) Sitrite (as N) Kjeldahl Nitrogen,Total (as N) Nitrate (as N) Nitrate (as N) Nitrate (as N) Nitrate Nitrite (as N)	EPA 180.1 EPA 200.7 EPA 300.0 EPA 351.4 EPA 355.4 EPA 355.2
108.110 108.112 108.112 108.112 108.112 108.112 108.112 108.112 108.120 108.120 108.120 108.120 108.120 108.120 108.120 108.120 108.209 108.211 108.232 108.232	001 002 003 004 005 006 007 007 001 002 008 012 013 014 001 001 001 002 003 004 001	Turbidity Boron Calcium Hardness (Calculation) Magnesium Potassium Silica, Dissolved Sodium Bromide Chloride Sulfate (as SO4) Nitrate (as N) Nitrate (as N) Nitrate (as N) Cyanide, Total Ammonia (as N) Kjeldahl Nitrogen,Total (as N) Nitrate (as N) Nitrate (as N) Nitrate.Nitrite (as N) Nitrate.Nitrite (as N) Nitrate.Nitrite (as N) Kjeldahl Nitrogen,Total (as N) Nitrate (as N) Nitrate (as N)	EPA 180.1 EPA 200.7 EPA 300.0 EPA 351.4 EPA 351.2 EPA 353.2 EPA 353.2 EPA 365.1

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108.323	001	Chemical Oxygen Demand	EPA 410.4
108.360	001	Phenols, Total	EPA 420.1
108.362	001	Phenols, Total	EPA 420.4
108.385	001	Color	SM 2120 B-2001
108.390	001	Turbidity	SM 2130 B-2001
108.410	001	Alkalinity	SM 2320 B-1997
108.420	001	Hardness (Calculation)	SM 2340 B-1997
108.430	001	Specific Conductance	SM 2510 B-1997
108.439	001	Residue, Volatile	SM 2540 E-1997
108.440	001	Residue, Total	SM 2540 B-1997
108.441	001	Residue, Filterable TDS	SM 2540 C-1997
108.442	001	Residue, Non-filterable TSS	SM 2540 D-1997
108.443	001	Residue, Settleable	SM 2540 F-1997
108.465	001	Chlorine, Total Residual	SM 4500-CI G-2000
108.465	002	Chlorine, Free	SM 4500-CI G-2000
108.473	001	Cyanide, Amenable	SM 4500-CN G-1999
108.474	001	Cyanide, Total	SM 4500-CN F-1999
108.490	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000
108.540	001	Phosphate,Ortho (as P)	SM 4500-P E-1999
108.541	001	Phosphorus,Total	SM 4500-P E-1999
108.552	001	Silica, Dissolved	SM 4500-SiO2 C-1997
108.584	001	Sulfide (as S)	SM 4500-S D-2000
108.592	001	Biochemical Oxygen Demand	SM 5210 B -2001
108.592	002	Carbonaceous BOD	SM 5210 B -2001
108.595	001	Chemical Oxygen Demand	SM 5220 D-1997
108.597	001	Organic Carbon-Total (TOC)	SM 5310 C-2000
108.605	001	Surfactants	SM 5540 C-2000
Field of	Testing	: 109 - Toxic Chemical Elements of Waste	ewater
109.010	001	Aluminum	EPA 200.7
109.010	002	Antimony	EPA 200.7
109.010	004	Barium	EPA 200.7
400.040			
109.010	005	Beryllium	EPA 200.7
109.010	005 006	Beryllium Boron	EPA 200.7 EPA 200.7
109.010 109.010 109.010	005 006 007	Beryllium Boron Cadmium	EPA 200.7 EPA 200.7 EPA 200.7
109.010 109.010 109.010 109.010	005 006 007 009	Beryllium Boron Cadmium Chromium	EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7
109.010 109.010 109.010 109.010 109.010	005 006 007 009 010	Beryllium Boron Cadmium Chromium Cobalt	EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7
109.010 109.010 109.010 109.010 109.010 109.010	005 006 007 009 010 011	Beryllium Boron Cadmium Chromium Cobalt Copper	EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7
109.010 109.010 109.010 109.010 109.010 109.010 109.010	005 006 007 009 010 011 012	Beryllium Boron Cadmium Chromium Cobalt Copper Iron	EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7
109.010 109.010 109.010 109.010 109.010 109.010 109.010 109.010	005 006 007 009 010 011 012 013	Beryllium Boron Cadmium Chromium Cobalt Copper Iron Lead	EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7
109.010 109.010 109.010 109.010 109.010 109.010 109.010 109.010	005 006 007 009 010 011 012 013 015	Beryllium Boron Cadmium Chromium Cobalt Copper Iron Lead Manganese	EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7 EPA 200.7
109.010 109.010 109.010 109.010 109.010 109.010 109.010 109.010 109.010	005 006 007 009 010 011 012 013 015 016	Beryllium Boron Cadmium Chromium Cobalt Copper Iron Lead Manganese Molybdenum	EPA 200.7 EPA 200.7

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109.010	021	Silver	EPA 200.7		
109.010	023	Thallium	EPA 200.7		
109.010	024	Tin	EPA 200.7		
109.010	025	Titanium	EPA 200.7		
109.010	026	Vanadium	EPA 200.7		
109.010	027	Zinc	EPA 200.7		
109.020	001	Aluminum	EPA 200.8		
109.020	002	Antimony	EPA 200.8		
109.020	003	Arsenic	EPA 200.8		
109.020	004	Barium	EPA 200.8		
109.020	005	Beryllium	EPA 200.8		
109.020	006	Cadmium	EPA 200.8		
109.020	007	Chromium	EPA 200.8		
109.020	800	Cobalt	EPA 200.8		
109.020	009	Copper	EPA 200.8		
109.020	010	Lead	EPA 200.8		
109.020	011	Manganese	EPA 200.8		
109.020	012	Molybdenum	EPA 200.8		
109.020	013	Nickel	EPA 200.8		
109.020	014	Selenium	EPA 200.8		
109.020	015	Silver	EPA 200.8		
109.020	016	Thallium	EPA 200.8		
109.020	017	Vanadium	EPA 200.8		
109.020	018	Zinc	EPA 200.8		
109.020	022	Tin	EPA 200.8		
109.020	023	Titanium	EPA 200.8		
109.104	001	Chromium (VI)	EPA 218.6		
109.190	001	Mercury	EPA 245.1		
109.445	001	Chromium	SM 3500-Cr B-2009		
109.446	001	Chromium (VI)	SM 3500-Cr C-2009		
Field of	Testing	: 112 - Radiochemistry of Wastewater			
112.010	001	Gross Alpha	EPA 900.0		
112.010	002	Gross Beta	EPA 900.0		
Field of Testing: 114 - Inorganic Chemistry of Hazardous Waste					
114.010	001	Antimony	EPA 6010 B	Aqueous Only	
114.010	003	Barium	EPA 6010 B	Aqueous Only	
114.010	004	Beryllium	EPA 6010 B	Aqueous Only	
114.010	005	Cadmium	EPA 6010 B	Aqueous Only	
114.010	006	Chromium	EPA 6010 B	Aqueous Only	
114.010	007	Cobalt	EPA 6010 B	Aqueous Only	
114.010	008	Copper	EPA 6010 B	Aqueous Only	
114.010	009	Lead	EPA 6010 B	Aqueous Only	

114.010	010	Molybdenum	EPA 6010 B	Aqueous Only
114.010	011	Nickel	EPA 6010 B	Aqueous Only
114.010	013	Silver	EPA 6010 B	Aqueous Only
114.010	014	Thallium	EPA 6010 B	Aqueous Only
114.010	015	Vanadium	EPA 6010 B	Aqueous Only
114.010	016	Zinc	EPA 6010 B	Aqueous Only
114.020	001	Antimony	EPA 6020	Aqueous Only
114.020	002	Arsenic	EPA 6020	Aqueous Only
114.020	003	Barium	EPA 6020	Aqueous Only
114.020	004	Beryllium	EPA 6020	Aqueous Only
114.020	005	Cadmium	EPA 6020	Aqueous Only
114.020	006	Chromium	EPA 6020	Aqueous Only
114.020	007	Cobalt	EPA 6020	Aqueous Only
114.020	800	Copper	EPA 6020	Aqueous Only
114.020	009	Lead	EPA 6020	Aqueous Only
114.020	010	Molybdenum	EPA 6020	Aqueous Only
114.020	011	Nickel	EPA 6020	Aqueous Only
114.020	012	Selenium	EPA 6020	Aqueous Only
114.020	013	Silver	EPA 6020	Aqueous Only
114.020	014	Thallium	EPA 6020	Aqueous Only
114.020	015	Vanadium	EPA 6020	Aqueous Only
114.020	016	Zinc	EPA 6020	Aqueous Only
114.103	001	Chromium (VI)	EPA 7196 A	Aqueous Only
114.106	001	Chromium (VI)	EPA 7199	Aqueous Only
114.140	001	Mercury	EPA 7470 A	Aqueous Only
114.240	001	Corrosivity - pH Determination	EPA 9040 B	Aqueous Only
114.270	001	Fluoride	EPA 9214	Aqueous Only

Certificate No. 2813 Expiration Date 2/1/2021


CALIFORNIA STATE



ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

Eurofins Calscience, LLC

7440 Lincoln Way

Garden Grove, CA 92841-1427

Scope of the certificate is limited to the "Fields of Testing" which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: 2944

Expiration Date: 9/30/2020

Effective Date: 10/1/2018

Sacramento, California subject to forfeiture or revocation

isten?

Christine Sotelo, Chief Environmental Laboratory Accreditation Program



CALIFORNIA STATE ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM Accredited Fields of Testing



Eurofins Calscience, LLC

7440 Lincoln Way Garden Grove, CA 92841-1427 Phone: 7148955494 Certificate No. 2944 Expiration Date 9/30/2020

Field of	Testing	: 102 - Inorganic Chemistry of Drinking W	/ater
102.015	001	Hydrogen Ion (pH)	EPA 150.1
102.026	001	Calcium	EPA 200.7
102.026	002	Magnesium	EPA 200.7
102.026	003	Potassium	EPA 200.7
102.026	004	Silica	EPA 200.7
102.026	005	Sodium	EPA 200.7
102.026	006	Hardness (Calculation)	EPA 200.7
102.030	001	Bromide	EPA 300.0
102.030	003	Chloride	EPA 300.0
102.030	005	Fluoride	EPA 300.0
102.030	006	Nitrate (as N)	EPA 300.0
102.030	007	Nitrite (as N)	EPA 300.0
102.030	800	Phosphate,Ortho (as P)	EPA 300.0
102.030	009	Sulfate (as SO4)	EPA 300.0
102.040	003	Chlorate	EPA 300.1
102.045	001	Perchlorate	EPA 314.0
102.047	001	Perchlorate	EPA 331.0
102.070	001	Phosphate,Ortho (as P)	EPA 365.1
102.100	001	Alkalinity	SM 2320 B-1997
102.121	001	Hardness	SM 2340 C-1997
102.130	001	Specific Conductance	SM 2510 B-1997
102.140	001	Residue, Filterable TDS	SM 2540 C-1997
102.148	001	Calcium	SM 3500-Ca B-1997
102.174	001	Chlorine, Free	SM 4500-CI F-2000
102.174	002	Chlorine, Total Residual	SM 4500-CI F-2000
102.175	001	Chlorine, Free	SM 4500-CI G-2000
102.175	002	Chlorine, Total Residual	SM 4500-CI G-2000
102.190	001	Cyanide, Total	SM 4500-CN E-1999
102.200	001	Fluoride	SM 4500-F C-2011
102.203	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000
102.220	001	Nitrite (as N)	SM 4500-NO2 B-2000
102.240	001	Phosphate,Ortho (as P)	SM 4500-P E-1999
102.260	001	Total Organic Carbon TOC	SM 5310 B-2000

As of 10/3/2019, this list supersedes all previous lists for this certificate number. Customers: Please verify the current accreditation standing with the State.

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 Expiration Date:
 9/30/2020

102.261	001	Dissolved Organic Carbon (DOC)	SM 5310 B-2000
102.264	001	Total Organic Carbon TOC	SM 5310 D-2000
102.265	001	Dissolved Organic Carbon (DOC)	SM 5310 D-2000
Field of	Testing	: 103 - Toxic Chemical Elements of Drink	ng Water
103.130	001	Aluminum	EPA 200.7
103.130	003	Barium	EPA 200.7
103.130	004	Beryllium	EPA 200.7
103.130	005	Cadmium	EPA 200.7
103.130	007	Chromium	EPA 200.7
103.130	800	Copper	EPA 200.7
103.130	009	Iron	EPA 200.7
103.130	011	Manganese	EPA 200.7
103.130	012	Nickel	EPA 200.7
103.130	015	Silver	EPA 200.7
103.130	017	Zinc	EPA 200.7
103.130	018	Boron	EPA 200.7
103.140	001	Aluminum	EPA 200.8
103.140	002	Antimony	EPA 200.8
103.140	003	Arsenic	EPA 200.8
103.140	004	Barium	EPA 200.8
103.140	005	Beryllium	EPA 200.8
103.140	006	Cadmium	EPA 200.8
103.140	007	Chromium	EPA 200.8
103.140	800	Copper	EPA 200.8
103.140	009	Lead	EPA 200.8
103.140	010	Manganese	EPA 200.8
103.140	012	Nickel	EPA 200.8
103.140	013	Selenium	EPA 200.8
103.140	014	Silver	EPA 200.8
103.140	015	Thallium	EPA 200.8
103.140	016	Zinc	EPA 200.8
103.140	017	Boron	EPA 200.8
103.140	018	Vanadium	EPA 200.8
103.160	001	Mercury	EPA 245.1
103.310	001	Chromium (VI)	EPA 218.6
Field of	Testing	: 104 - Volatile Organic Chemistry of Drin	king Water
104.030	001	1,2-Dibromoethane (EDB, Ethylene Dibromide)	EPA 504.1
104.030	002	1,2-Dibromo-3-chloropropane (DBCP)	EPA 504.1
104.035	001	1,2,3-Trichloropropane (TCP)	SRL 524M-TCP
104.040	000	Volatile Organic Compounds	EPA 524.2
Field of	Testing	: 108 - Inorganic Constituents in Non-Pota	able Water
108.020	001	Specific Conductance	EPA 120.1

As of $10/3/2019\,$, this list supersedes all previous lists for this certificate number. Customers: Please verify the current accreditation standing with the State.

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 Certificate No.:
 2944

 Expiration Date:
 9/30/2020

108.110	001	Turbidity	EPA 180.1
108.112	001	Boron	EPA 200.7
108.112	002	Calcium	EPA 200.7
108.112	003	Hardness (Calculation)	EPA 200.7
108.112	004	Magnesium	EPA 200.7
108.112	005	Potassium	EPA 200.7
108.112	006	Silica, Dissolved	EPA 200.7
108.112	007	Sodium	EPA 200.7
108.113	001	Boron	EPA 200.8
108.120	001	Bromide	EPA 300.0
108.120	002	Chloride	EPA 300.0
108.120	003	Fluoride	EPA 300.0
108.120	800	Sulfate (as SO4)	EPA 300.0
108.120	012	Nitrate (as N)	EPA 300.0
108.120	013	Nitrate-Nitrite (as N)	EPA 300.0
108.120	014	Nitrite (as N)	EPA 300.0
108.120	015	Phosphate,Ortho (as P)	EPA 300.0
108.209	001	Ammonia (as N)	EPA 350.1
108.211	002	Kjeldahl Nitrogen,Total (as N)	EPA 351.2
108.260	001	Phosphate, Ortho	EPA 365.1
108.261	001	Phosphorus,Total	EPA 365.1
108.264	001	Phosphate, Ortho	EPA 365.3
108.265	001	Phosphorus,Total	EPA 365.3
108.323	001	Chemical Oxygen Demand	EPA 410.4
108.360	001	Phenols, Total	EPA 420.1
108.381	001	Oil & Grease Total	EPA 1664 A
108.385	001	Color	SM 2120 B-2001
108.390	001	Turbidity	SM 2130 B-2001
108.410	001	Alkalinity	SM 2320 B-1997
108.421	001	Hardness	SM 2340 C-1997
108.430	001	Specific Conductance	SM 2510 B-1997
108.439	001	Residue, Volatile	SM 2540 E-1997
108.440	001	Residue, Total	SM 2540 B-1997
108.441	001	Residue, Filterable TDS	SM 2540 C-1997
108.442	001	Residue, Non-filterable TSS	SM 2540 D-1997
108.443	001	Residue, Settleable	SM 2540 F-1997
108.451	001	Chloride	SM 4500-Chloride C-1997
108.464	001	Chlorine, Total Residual	SM 4500-CI F-2000
108.464	002	Chlorine, Free	SM 4500-CI F-2000
108.472	001	Cyanide, Total	SM 4500-CN E-1999
108.473	001	Cyanide, Amenable	SM 4500-CN G-1999
108.480	001	Fluoride	SM 4500-F B,C-1997

As of $10/3/2019\,$, this list supersedes all previous lists for this certificate number. Customers: Please verify the current accreditation standing with the State.

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3.3.b

108.490	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000
108.500	002	Ammonia (as N)	SM 4500-NH3 B,C-1997
108.501	002	Kjeldahl Nitrogen,Total (as N)	SM 4500-NH3 C-1997
108.504	002	Ammonia (as N)	SM 4500-NH3 F-1997
108.511	001	Kjeldahl Nitrogen,Total (as N)	SM 4500-Norg B- 1997
108.514	001	Nitrite (as N)	SM 4500-NO2 B-2000
108.528	001	Nitrate-Nitrite (as N)	SM 4500-NO3- E-2000
108.536	001	Oxygen, Dissolved	SM 4500-O G-2001
108.584	001	Sulfide (as S)	SM 4500-S D-2000
108.592	001	Biochemical Oxygen Demand	SM 5210 B -2001
108.592	002	Carbonaceous BOD	SM 5210 B -2001
108.595	001	Chemical Oxygen Demand	SM 5220 D-1997
108.598	001	Organic Carbon-Total (TOC)	SM 5310 D-2000
108.605	001	Surfactants	SM 5540 C-2000
108.626	001	Phenols, Total	SM 5530 D-2010
Field of	Testing	: 109 - Metals and Trace Elements in Nor	n-Potable Water
109.010	001	Aluminum	EPA 200.7
109.010	002	Antimony	EPA 200.7
109.010	003	Arsenic	EPA 200.7
109.010	004	Barium	EPA 200.7
109.010	005	Beryllium	EPA 200.7
109.010	006	Boron	EPA 200.7
109.010	007	Cadmium	EPA 200.7
109.010	009	Chromium	EPA 200.7
109.010	010	Cobalt	EPA 200.7
109.010	011	Copper	EPA 200.7
109.010	012	Iron	EPA 200.7
109.010	013	Lead	EPA 200.7
109.010	015	Manganese	EPA 200.7
109.010	016	Molybdenum	EPA 200.7
109.010	017	Nickel	EPA 200.7
109.010	019	Selenium	EPA 200.7
109.010	021	Silver	EPA 200.7
109.010	023	Thallium	EPA 200.7
109.010	024	Tin	EPA 200.7
109.010	025	Titanium	EPA 200.7
109.010	026	Vanadium	EPA 200.7
109.010	027	Zinc	EPA 200.7
109.020	001	Aluminum	EPA 200.8
109.020	002	Antimony	EPA 200.8
109.020	003	Arsenic	EPA 200.8
109.020	004	Barium	EPA 200.8

As of $10/3/2019\,$, this list supersedes all previous lists for this certificate number. Customers: Please verify the current accreditation standing with the State.

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 Certificate No.:
 2944

 Expiration Date:
 9/30/2020

109.020	005	Beryllium	EPA 200.8
109.020	006	Cadmium	EPA 200.8
109.020	007	Chromium	EPA 200.8
109.020	800	Cobalt	EPA 200.8
109.020	009	Copper	EPA 200.8
109.020	010	Lead	EPA 200.8
109.020	011	Manganese	EPA 200.8
109.020	012	Molybdenum	EPA 200.8
109.020	013	Nickel	EPA 200.8
109.020	014	Selenium	EPA 200.8
109.020	015	Silver	EPA 200.8
109.020	016	Thallium	EPA 200.8
109.020	017	Vanadium	EPA 200.8
109.020	018	Zinc	EPA 200.8
109.020	021	Iron	EPA 200.8
109.020	022	Tin	EPA 200.8
109.020	023	Titanium	EPA 200.8
109.104	001	Chromium (VI)	EPA 218.6
109.190	001	Mercury	EPA 245.1
Field of	Testing	: 110 - Volatile Organic Constituents in No	on-Potable Water
110.020	000	Purgeable Aromatics	EPA 602
-			
110.040	000	Purgeable Organic Compounds	EPA 624
110.040	000 Testing	Purgeable Organic Compounds : 111 - Semi-volatile Organic Constituents	EPA 624 s in Non-Potable Water
110.040 Field of 111.060	000 Testing 000	Purgeable Organic Compounds : 111 - Semi-volatile Organic Constituents Polynuclear Aromatics	EPA 624 s in Non-Potable Water EPA 610
110.040 Field of 111.060 111.100	000 Testing 000 000	Purgeable Organic Compounds : 111 - Semi-volatile Organic Constituents Polynuclear Aromatics Base/Neutral & Acid Organics	EPA 624 s in Non-Potable Water EPA 610 EPA 625
110.040 Field of 111.060 111.100 111.170	000 Testing 000 000 000	Purgeable Organic Compounds : 111 - Semi-volatile Organic Constituents Polynuclear Aromatics Base/Neutral & Acid Organics Organochlorine Pesticides and PCBs	EPA 624 s in Non-Potable Water EPA 610 EPA 625 EPA 608
110.040 Field of ⁻ 111.060 111.100 111.170 Field of ⁻	000 Testing 000 000 000 Testing	Purgeable Organic Compounds : 111 - Semi-volatile Organic Constituents Polynuclear Aromatics Base/Neutral & Acid Organics Organochlorine Pesticides and PCBs : 114 - Inorganic Chemistry of Hazardous	EPA 624 s in Non-Potable Water EPA 610 EPA 625 EPA 608
110.040 Field of 7 111.060 111.100 111.170 Field of 7 114.010	000 Testing 000 000 000 Testing 001	Purgeable Organic Compounds : 111 - Semi-volatile Organic Constituents Polynuclear Aromatics Base/Neutral & Acid Organics Organochlorine Pesticides and PCBs : 114 - Inorganic Chemistry of Hazardous Antimony	EPA 624 s in Non-Potable Water EPA 610 EPA 625 EPA 608 Waste EPA 6010 B
110.040 Field of ⁻ 111.060 111.100 111.170 Field of ⁻ 114.010 114.010	000 Testing 000 000 000 Testing 001 002	Purgeable Organic Compounds : 111 - Semi-volatile Organic Constituents Polynuclear Aromatics Base/Neutral & Acid Organics Organochlorine Pesticides and PCBs : 114 - Inorganic Chemistry of Hazardous Antimony Arsenic	EPA 624 s in Non-Potable Water EPA 610 EPA 625 EPA 608 Waste EPA 6010 B EPA 6010 B
110.040 Field of 111.060 111.100 111.170 Field of 114.010 114.010 114.010	000 Testing 000 000 000 Testing 001 002 003	Purgeable Organic Compounds : 111 - Semi-volatile Organic Constituents Polynuclear Aromatics Base/Neutral & Acid Organics Organochlorine Pesticides and PCBs : 114 - Inorganic Chemistry of Hazardous Antimony Arsenic Barium	EPA 624 s in Non-Potable Water EPA 610 EPA 625 EPA 608 Waste EPA 6010 B EPA 6010 B EPA 6010 B
110.040 Field of ⁻ 111.060 111.100 111.170 Field of ⁻ 114.010 114.010 114.010 114.010	000 Testing 000 000 000 Testing 001 002 003 004	Purgeable Organic Compounds : 111 - Semi-volatile Organic Constituents Polynuclear Aromatics Base/Neutral & Acid Organics Organochlorine Pesticides and PCBs : 114 - Inorganic Chemistry of Hazardous Antimony Arsenic Barium Beryllium	EPA 624 s in Non-Potable Water EPA 610 EPA 625 EPA 608 Waste EPA 6010 B
110.040 Field of ⁻ 111.060 111.100 111.170 Field of ⁻ 114.010 114.010 114.010 114.010 114.010	000 Testing 000 000 Testing 001 002 003 004 005	Purgeable Organic Compounds : 111 - Semi-volatile Organic Constituents Polynuclear Aromatics Base/Neutral & Acid Organics Organochlorine Pesticides and PCBs : 114 - Inorganic Chemistry of Hazardous Antimony Arsenic Barium Beryllium Cadmium	EPA 624 s in Non-Potable Water EPA 610 EPA 625 EPA 608 Waste EPA 6010 B
110.040 Field of 111.060 111.100 111.170 Field of 114.010 114.010 114.010 114.010 114.010 114.010 114.010	000 Testing 000 000 000 Testing 001 002 003 004 005 006	Purgeable Organic Compounds : 111 - Semi-volatile Organic Constituents Polynuclear Aromatics Base/Neutral & Acid Organics Organochlorine Pesticides and PCBs : 114 - Inorganic Chemistry of Hazardous Antimony Arsenic Barium Beryllium Cadmium Chromium	EPA 624 s in Non-Potable Water EPA 610 EPA 625 EPA 608 Waste EPA 6010 B
110.040 Field of ⁻ 111.060 111.100 111.170 Field of ⁻ 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010	000 Testing 000 000 Testing 001 002 003 004 005 006 007	Purgeable Organic Compounds : 111 - Semi-volatile Organic Constituents Polynuclear Aromatics Base/Neutral & Acid Organics Organochlorine Pesticides and PCBs : 114 - Inorganic Chemistry of Hazardous Antimony Arsenic Barium Beryllium Cadmium Chromium Cobalt	EPA 624 s in Non-Potable Water EPA 610 EPA 625 EPA 608 Waste EPA 6010 B
110.040 Field of 111.060 111.100 111.170 Field of 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010	000 Testing 000 000 000 Testing 001 002 003 004 005 006 007 008	Purgeable Organic Compounds : 111 - Semi-volatile Organic Constituents Polynuclear Aromatics Base/Neutral & Acid Organics Organochlorine Pesticides and PCBs : 114 - Inorganic Chemistry of Hazardous Antimony Arsenic Barium Beryllium Cadmium Chromium Cobalt Copper	EPA 624 s in Non-Potable Water EPA 610 EPA 625 EPA 608 Waste EPA 6010 B
110.040 Field of 111.060 111.100 111.170 Field of 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010	000 Testing 000 000 Testing 001 002 003 004 005 006 007 008 009	Purgeable Organic Compounds : 111 - Semi-volatile Organic Constituents Polynuclear Aromatics Base/Neutral & Acid Organics Organochlorine Pesticides and PCBs : 114 - Inorganic Chemistry of Hazardous Antimony Arsenic Barium Beryllium Cadmium Chromium Cobalt Copper Lead	EPA 624 s in Non-Potable Water EPA 610 EPA 625 EPA 608 Waste EPA 6010 B
110.040 Field of 111.060 111.100 111.170 Field of 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010	000 Testing 000 000 Testing 001 002 003 004 005 006 007 008 009 010	Purgeable Organic Compounds : 111 - Semi-volatile Organic Constituents Polynuclear Aromatics Base/Neutral & Acid Organics Organochlorine Pesticides and PCBs : 114 - Inorganic Chemistry of Hazardous Antimony Arsenic Barium Beryllium Cadmium Chromium Cobalt Copper Lead Molybdenum	EPA 624 s in Non-Potable Water EPA 610 EPA 625 EPA 608 Waste EPA 6010 B
110.040 Field of 111.060 111.000 111.100 111.170 Field of 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010	000 Testing 000 000 Testing 001 002 003 004 005 006 007 008 009 010 011	Purgeable Organic Compounds : 111 - Semi-volatile Organic Constituents Polynuclear Aromatics Base/Neutral & Acid Organics Organochlorine Pesticides and PCBs : 114 - Inorganic Chemistry of Hazardous Antimony Arsenic Barium Beryllium Cadmium Chromium Cobalt Copper Lead Molybdenum Nickel	EPA 624 s in Non-Potable Water EPA 610 EPA 625 EPA 608 Waste EPA 6010 B
110.040 Field of 111.060 111.100 111.170 Field of 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010	000 Testing 000 000 Testing 001 002 003 004 005 006 007 008 009 010 011 012	Purgeable Organic Compounds : 111 - Semi-volatile Organic Constituents Polynuclear Aromatics Base/Neutral & Acid Organics Organochlorine Pesticides and PCBs : 114 - Inorganic Chemistry of Hazardous Antimony Arsenic Barium Beryllium Cadmium Chromium Cobalt Copper Lead Molybdenum Nickel Selenium	EPA 624 s in Non-Potable Water EPA 610 EPA 625 EPA 608 Waste EPA 6010 B
110.040 Field of ⁻ 111.060 111.000 111.100 111.170 Field of ⁻ 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010	000 Testing 000 000 000 Testing 001 002 003 004 005 006 007 008 009 010 011 012 013	Purgeable Organic Compounds : 111 - Semi-volatile Organic Constituents Polynuclear Aromatics Base/Neutral & Acid Organics Organochlorine Pesticides and PCBs : 114 - Inorganic Chemistry of Hazardous Antimony Arsenic Barium Beryllium Cadmium Cadmium Cobalt Copper Lead Molybdenum Nickel Selenium Silver	EPA 624 s in Non-Potable Water EPA 610 EPA 625 EPA 608 Waste EPA 6010 B
110.040 Field of 111.060 111.100 111.170 Field of 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010 114.010	000 Testing 000 000 Testing 001 002 003 004 005 006 007 008 009 010 011 012 013 014	Purgeable Organic Compounds : 111 - Semi-volatile Organic Constituents Polynuclear Aromatics Base/Neutral & Acid Organics Organochlorine Pesticides and PCBs : 114 - Inorganic Chemistry of Hazardous Antimony Arsenic Barium Beryllium Cadmium Chromium Cobalt Copper Lead Molybdenum Nickel Selenium Silver Thallium	EPA 624 sin Non-Potable Water EPA 610 EPA 625 EPA 608 Waste EPA 6010 B EPA 6010 B

As of $10/3/2019\,$, this list supersedes all previous lists for this certificate number. Customers: Please verify the current accreditation standing with the State.

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 Certificate No.:
 2944

 Expiration Date:
 9/30/2020

114.010	016	Zinc	EPA 6010 B
114.020	001	Antimony	EPA 6020
114.020	002	Arsenic	EPA 6020
114.020	003	Barium	EPA 6020
114.020	004	Beryllium	EPA 6020
114.020	005	Cadmium	EPA 6020
114.020	006	Chromium	EPA 6020
114.020	007	Cobalt	EPA 6020
114.020	008	Copper	EPA 6020
114.020	009	Lead	EPA 6020
114.020	010	Molybdenum	EPA 6020
114.020	011	Nickel	EPA 6020
114.020	012	Selenium	EPA 6020
114.020	013	Silver	EPA 6020
114.020	014	Thallium	EPA 6020
114.020	015	Vanadium	EPA 6020
114.020	016	Zinc	EPA 6020
114.103	001	Chromium (VI)	EPA 7196 A
114.106	001	Chromium (VI)	EPA 7199
114.130	001	Lead	EPA 7420
114.140	001	Mercury	EPA 7470 A
114.141	001	Mercury	EPA 7471 A
114.241	001	Corrosivity - pH Determination	EPA 9045 C
114.250	001	Fluoride	EPA 9056
Field of	Testing	: 115 - Extraction Test of Hazardous Was	te
115.020	001	Toxicity Characteristic Leaching Procedure (TCLP)EPA 1311 (TCLP)
115.021	001	TCLP Inorganics	EPA 1311 (TCLP)
115.022	001	TCLP Extractables	EPA 1311 (TCLP)
115.023	001	TCLP Volatiles	EPA 1311 (TCLP)
115.030	001	Waste Extraction Test (WET)	CCR Chapter11, Article 5, Appendix II
115.040	001	Synthetic Precipitation Leaching Procedure (SPLF	P)EPA 1312 (SPLP)
Field of	Testing	: 116 - Volatile Organic Chemistry of Haza	ardous Waste
116.030	001	Gasoline-range Organics	EPA 8015 B
116.040	041	Methyl tert-butyl Ether (MTBE)	EPA 8021 B
116.040	061	Aromatic Volatiles	EPA 8021 B
116.080	000	Volatile Organic Compounds	EPA 8260 B
116.080	120	Oxygenates	EPA 8260 B
116.100	001	Total Petroleum Hydrocarbons - Gasoline (GRO)	LUFT GC/MS
116.100	010	BTEX and MTBE	LUFT GC/MS
116.110	001	Total Petroleum Hydrocarbons - Gasoline (GRO)	LUFT
Field of	Testing	: 117 - Semi-volatile Organic Chemistry of	f Hazardous Waste
117.010	001	Diesel-range Total Petroleum Hydrocarbons	EPA 8015 B

As of $10/3/2019\,$, this list supersedes all previous lists for this certificate number. Customers: Please verify the current accreditation standing with the State.

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 Certificate No.:
 2944

 Expiration Date:
 9/30/2020

117.016	001	Diesel-range Total Petroleum Hydrocarbons	LUFT
117.110	000	Extractable Organics	EPA 8270 C
117.140	000	Polynuclear Aromatic Hydrocarbons	EPA 8310
117.170	000	Nitroaromatics and Nitramines	EPA 8330
117.210	000	Organochlorine Pesticides	EPA 8081 A
117.220	000	PCBs	EPA 8082
117.240	000	Organophosphorus Pesticides	EPA 8141 A
117.250	000	Chlorinated Herbicides	EPA 8151 A
Field of	Testing	: 120 - Physical Properties of Hazardous	Waste
120.010	001	Ignitability	EPA 1010
120.040	001	Reactive Cyanide	Section 7.3 SW-846
120.050	001	Reactive Sulfide	Section 7.3 SW-846
120.080	001	Corrosivity - pH Determination	EPA 9045 C

EXHIBIT C

Water Supply
Public
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Service
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RFP – A

Technical Proposal Score Sheet

Rater: **RFP** Evaluation Committee

•				t \$	
Item	Evaluation Criteria	Weighting	ESB Babcock	Eurofins	Clinical Laboratory of San
			Laboratories, Inc.		Bernardino, Inc.
1	Qualifications and experience of the project manager and other individuals		10 Points	10 Points	10 Points
	Comments	10 Points	Project Manager has 10 years of experience in the environmental laboratory business working for Babcock labs. The lab is 23 miles from WVWD HQs.	Project Manager has over 28 years of industry experience. The lab is 37 miles from WVWD HQs.	Project Manager has 12 years of industry experience. The lab is 9.5 miles from WVWD HQs.
0	Capability to perform required drinking water analyses, meet detection limits, immediate notification of exceedances, laboratory certifications, and deliver reports and electronic data deliverables (DDW & WaterTrax).	20 Points	20 Points	20 Points	20 Points
	Comments		Satisfied Requirement	Satisfied Requirement	Satisfied Requirement
3	Quality of Proposal Response Package		10 Points	10 Points	9 Points
	Comments	10 Points	Addressed all aspects of the RFP in a clear, concise manner.	Addressed all aspects of the RFP in a clear, concise manner.	Addressed all aspects of the RFP in a clear, concise manner. There were a few
4	Results of reference checks.		10 Points	10 Points	10 Points
	Comments	10 Points	Satisfied	Satisfied	Satisfied
5	Rationality of firm's fee schedule		30.5 Points	24.5 Points	50 Points
	Comments	50 Points	Annual monitoring cost is	Annual monitoring cost is	Lowest bidder.
			39% higher than the lowest	51% higher than the lowest	
			bidder.	bidder.	
		otal Score:	80.5	74.5	99
	Rank	(1 st , 2 nd):	2	3	1

Packet	Pg.	119
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					1
Parameters	Total No. of Samples Per	Babcock	Clinical	Eurofin	
	Year	Cost/Test	Cost/Test	Cost/Tes	st
/A (9223)	2627	\$ 8.00	<mark>\$ 6.75</mark>	\$ 11.	8
АТЕ (15)	106	\$ 25.00	\$ 15.00	\$ 15.	00
1PC	12	\$ 5.00	\$ 5.00	\$ 10.	8
.0C	388	\$ 20.00	\$ 17.50	\$ 30.	8
00C	324	\$ 20.00	\$ 17.50	\$ 40.	0
ukalinity	324	\$ 10.00	\$ 5.00	\$ 10.	00
coliform /E.Coli (P/A)	52	\$ 15.00	\$ 8.00	\$ 11.	8
JV 254	52	\$ 40.00	\$ 35.00	\$ 20.	0
ŝeneral Physical	685	\$ 12.00	\$ 12.00	\$ 15.	8
urbidity	52	\$ 6.00	\$ 4.00	\$ 10.	00
4	92	\$ 7.50	\$ 5.00	\$ 10.	8
'n	88	\$ 7.50	\$ 5.00	\$ 10.	8
litrate	434	\$ 8.00	\$ 6.00	\$ 10.	8
erchlorate	922	<mark>\$ 66.00</mark>	<mark>\$ 35.00</mark>	<mark>\$ 60.</mark>	8
260	0	\$ 85.00	\$ 110.00	\$ 100.	8
SQ	36	\$ 12.00	\$ 15.00	\$ 10.	8
CE	0	\$ 40.00	\$ 25.00	\$ 50.	8
ulfide	0	\$ 10.00	\$ 10.00	\$ 15.	8
NI	0	\$ 28.00	\$ 25.00	\$ 45.	8
otal Phosphate	0	\$ 17.00	\$ 25.00	\$ 20.	8
00	0	\$ 32.00	\$ 30.00	\$ 65.	8
SS	0	\$ 12.00	\$ 15.00	\$ 10.	8
łs	55	\$ 7.50	\$ 5.00	\$ 10.	8
ė	28	\$ 7.50	\$ 5.00	\$ 10.	8
An	28	\$ 7.50	\$ 5.00	\$ 10.	8
ИТВЕ	19	\$ 40.00	\$ 12.50	\$ 40.	8
Benzene	6	\$ 40.00	\$ 25.00	\$ 50.	8
burosivity	132	\$ 37.00	\$ 25.00	\$ 10.	8
THM (524.2)	44	\$ 40.00	\$ 30.00	\$ 40.	8
HAA5 (552)	44	\$ 50.00	\$ 60.00	\$ 65.	8
silica	12	\$ 7.50	\$ 5.00	\$ 10.	8
chloride	12	\$ 8.50	\$ 6.00	\$ 10.	00
SM10	12	\$ 144.00	\$ 90.00	\$ 75.	8
(,2,3 TCP	85	\$ 55.00	\$ 35.00	\$ 75.	00
itle 22 VOCs	4	\$ 275.00	\$ 185.00	\$ 245.	00
itle 22 SOCs	۷	\$ 1,235.00	\$ 1,310.00	\$ 1,275.	00
ōross Alpha , Uranium	5	\$ 37.00	\$ 35.00	\$ 40.	8
tadium 226	5	\$ 90.00	\$ 90.00	\$ 75.	8
kadi um 228	5	\$ 165.00	\$ 165.00	\$ 75.	8
PCE	27	\$ 40.00	\$ 40.00	\$ 50.	8
.CE	11	\$ 40.00	\$ 40.00	\$ 50.	8
cr+6	5	\$ 20.00	\$ 20.00	\$ 35.	8
/OC (524)	6	\$ 88.00	\$ 185.00	\$ 245.	8
3eneral Minerals (see GM10)	0				
Asbestos	0	\$ 200.00	\$ 150.00	\$ 150.	8
ICS (524 VOC and 525 SOC)	0	\$ 395.00	\$ 335.00	\$ 395.	8
tadio- logical	0	\$ 304.00	\$ 370.00	\$ 225.	8
348 / 549 / 1613	0	\$ 460.00	\$ 435.00	\$ 400.	8
604/508/5158/524/525/531/547	0	\$ 865.00	\$ 680.00	\$ 745.	8
Acute Toxicity	0	\$ 250.00	\$ 250.00	\$ 250.	8
¹ b, Ni, Se, Ag, Tl, Zn, Sb, Be, Cd,	0	\$ 67.50	\$ 45.00	\$ 90.	00

	Babcock	Clinical		Ē	rofin
	Total	Total		F	otal
ş	21,016.00	\$ 17,73	\$2.25	Ş	28,897.00
Ş	2,650.00	\$ 1,55	90.00	Ş	1,590.00
ŝ	60.00	\$ 6	00.00	Ş	120.00
ş	7,760.00	\$ 6,75	90.00	Ş	11,640.00
Ş	6,480.00	\$ 5,67	00.00	Ş	12,960.00
Ş	3,240.00	\$ 1,62	00.00	Ş	3,240.00
Ŷ	780.00	\$ 41	16.00	Ş	572.00
ş	2,080.00	\$ 1,82	00.00	Ş	1,040.00
ŝ	8,220.00	\$ 8,22	20.00	Ş	10,275.00
ŝ	312.00	\$ 20	00.80	Ş	520.00
ş	570.00	\$ 3E	30.00	Ş	760.00
ş	660.00	\$ 44	10.00	Ş	880.00
Ş	3,472.00	\$ 2,6C	04.00	Ş	4,340.00
ŝ	60,852.00	\$ 32,27	00.00	Ş	55,320.00
Ş		\$	-	Ş	-
Ş	432.00	\$ 54	t0.00	\$	360.00
Ş		Ş		Ş	
ş		\$		Ş	-
ş		\$		Ş	-
Ş		Ş		Ş	
ş		Ş		Ş	
\$		Ş	-	Ş	
ş	412.50	\$ 27	5.00	Ş	550.00
ş	210.00	\$ 14	00.01	Ş	280.00
ŝ	210.00	\$ 14	10.00	ş	280.00
ş	760.00	\$ 23	37.50	Ş	760.00
ŝ	360.00	\$ 22	5.00	Ş	450.00
\$	4,884.00	\$ 3'3C	00.00	Ş	1,320.00
ş	1,760.00	\$ 1,32	00.00	Ş	1,760.00
Ş	2,200.00	\$ 2,64	10.00	Ş	2,860.00
ş	90.00	\$ 6	60.00	Ş	120.00
Ş	102.00	\$ 7	72.00	Ş	120.00
Ş	1,728.00	\$ 1,08	30.00	Ş	900.00
Ş	1,815.00	\$ 1,15	55.00	Ş	2,475.00
Ş	1,100.00	\$ 74	10.00	Ş	980.00
ŝ	8,645.00	\$ 9,17	00.00	Ş	8,925.00
Ş	185.00	\$ 17	5.00	Ş	200.00
ş	450.00	\$ 45	00.00	Ş	375.00
Ş	825.00	\$ 82	5.00	Ş	375.00
ş	1,080.00	\$ 1,08	30.00	Ş	1,350.00
Ş	440.00	\$ 44	10.00	Ş	550.00
Ş	100.00	\$ 10	00.00	Ş	175.00
Ş	792.00	\$ 1,66	55.00	Ş	2,205.00
ş		Ş		Ş	
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Summary	3	Babcock	-	Clinical	1	Eurofins
Estimated lab services cost per year based on						
FBR, FXB and Arsenic plants are offline	Ş	146,733	ŝ	105,650	ŝ	159,524
Estimated lab services cost if FBR, FXB, and						
Arsenic Plants are online	Ş	273,109	ŝ	209,282	ŝ	295,671

Hg	0	\$ 12.00	\$ 20.C	0 \$	15.00
Cr*3	0	\$ 27.50	\$ 40.C	0 \$	50.00
Total Phenols-CLS	0	\$ 25.00	\$ 70.C	\$ 0	25.00
8015	0	\$ 80.00	\$ 150.C	\$ 0	100.00
1613 full list	0	\$ 225.00	\$ 275.C	0 \$	250.00
1,4 Dioxane	0	\$ 150.00	\$ 200.C	0 \$	125.00
Cyanide	0	\$ 28.00	\$ 20.C	\$ 0	40.00
Total P	0	\$ 17.00	\$ 25.C	\$ 0	20.00
8262-FBR / 504 EDB	0	\$ 50.00	\$ 40.0	\$ 0	50.00
608, 610, 624, 625 All NPDES CLS	0	\$ 420.00	\$ 635.C	\$ 0	525.00
Total Residual Cl2	0	\$ -	\$ -	Ş	-
Sulfate	0	\$ 8.00	\$ 6.C	\$ 0	10.00
EC or Conductivity	0	\$ 6.00	\$ 5.C	\$ 0	10.00
Ca	0	\$ 7.50	\$ 5.C	¢ 0	10.00
Annual total cost when FBR, FXB, & Arseni	: plants are offline				

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159.524.00		•			•				•	•			•	
Ś	ş	Ş	Ş	Ş	Ş	Ş	Ş	Ş	Ş	ş	ş	Ş	Ş	ŝ
105.649.75							-							
Ś	Ş	Ş	Ş	Ş	Ş	Ş	Ş	Ş	Ş	ş	ş	Ş	Ş	Ŷ
146.732.50	-			-										
\$	Ş	Ş	Ş	Ş	Ş	\$	Ş	Ş	\$	Ş	Ş	Ş	Ŷ	Ŷ

Parameters	Total No. of Samples Per	Babcock	Clinic	a	B	ofin
	Year	Cost/Test	Cost/1	est	COS	/Test
P/A (9223)	2899	\$ 8.00	s ·	6.75	s .	11.00
MTF (15)	106	\$ 25.00	\$ 1	5.00	Ş	15.00
НРС	12	\$ 5.00	Ş	5.00	ş	10.00
TOC	500	\$ 20.00	\$ 1	7.50	Ş	30.00
boc	324	\$ 20.00	\$ 1	7.50	Ş	40.00
Alka- linity	436	\$ 10.00	Ş	5.00	Ş	10.00
Coliform / E.Coli (P/A)	52	\$ 15.00	Ş	8.00	Ş	11.00
UV 254	52	\$ 40.00	\$ 3	5.00	Ş	20.00
General Physical	789	\$ 12.00	\$ 1	2.00	Ş	15.00
Turbidity	52	\$ 6.00	Ş	4.00	Ş	10.00
AI	76	\$ 7.50	Ş	5.00	ş	10.00
5	88	\$ 7.50	Ş	5.00	ş	10.00
Nitrate	558	\$ 8.00	Ş	6.00	Ş	10.00
Perchlorate	1591	\$ 66.00	\$ 3	5.00	Ş	60.00
3260	233	\$ 85.00	\$ 11	0.00	Ş	100.00
TDS	400	\$ 12.00	\$ 1	5.00	ŝ	10.00
TCE	384	\$ 40.00	\$ 2	5.00	Ş	50.00
Sulfide	129	\$ 10.00	\$ 1	0.00	Ş	15.00
TIN	209	\$ 28.00	\$ 2	5.00	Ş	45.00
Total Phosphate	208	\$ 17.00	\$ 2	5.00	ş	20.00
BOD	53	\$ 32.00	\$ 3	0.00	Ş	65.00
ISS	261	\$ 12.00	\$ 1	5.00	ş	10.00
Ås.	159	\$ 7.50	Ş	5.00	ŝ	10.00
Fe	80	\$ 7.50	Ş	5.00	Ş	10.00
Mn	80	\$ 7.50	Ş	5.00	ş	10.00
MTBE	71	\$ 40.00	\$ 1	2.50	Ş	40.00
Benzene	6	\$ 40.00	\$ \$	5.00	ş	50.00
Corrosivity	164	\$ 37.00	\$ 2	5.00	ş	10.00
TTHM (524.2)	68	\$ 40.00	\$ \$	0.00	Ş	40.00
HAA5 (552)	68	\$ 50.00	\$	0.00	ş	65.00
Silica	12	\$ 7.50	Ş	5.00	ş	10.00
Ch lorid e	12	\$ 8.50	Ş	6.00	Ş	10.00
GM10	17	\$ 144.00	ۍ ۶	0.00	ş	75.00
1,2,3 TCP	38	\$ 55.00	\$ 3	5.00	Ş	75.00
Title 22 VOCs	4	\$ 275.00	\$ 18	5.00	Ş	245.00
Title 22 SOCs	7	\$ 1,235.00	\$ 1,31	0.00	\$ 1,	275.00
Gross Alpha , Uranium	5	\$ 37.00	\$ 3	5.00	Ş	40.00
Radium 226	5	\$ 90.00	Ş 9	0.00	Ş	75.00
Radium 228	5	\$ 165.00	\$ 16	5.00	Ş	75.00
PCE	27	\$ 40.00	\$ 4	0.00	Ş	50.00
TCE	11	\$ 40.00	\$ 4	0.00	Ş	50.00
Cr+6	6	\$ 20.00	\$ 2	0.00	Ş	35.00
VOC (524)	6	\$ 88.00	\$ 18	5.00	Ş	245.00
General Minerals (see GM10)	0					
Asbestos	5	\$ 200.00	\$ 15	0.00	Ş	150.00
TICS (524 VOC and 525 SOC)	1	\$ 395.00	\$ 33	5.00	Ş	395.00
Radio-logical	5	\$ 304.00	\$ 37	0.00	ş	225.00
548 /549 / 1613	5	\$ 460.00	\$ 43	5.00	ŝ	400.00
504/508/5158/524/525/531/547	5	\$ 865.00	\$ 68	0.00	Ş	745.00
Acute Toxicity	1	\$ 250.00	\$ 25	0.00	ş	250.00

Jacoded		C	laica	Fund	5
Total		- F	otal	Tota	_
\$ 23,19	92.00	Ş	19,568.25	\$ 31	,889.00
\$ 3,65	60.00	Ş	1,590.00	\$ 1	,590.00
\$ 6	60.00	Ş	60.00	Ş	120.00
\$ 10,00	00.00	Ş	8,750.00	\$ 15.	,000.000
\$ 6,48	30.00	Ş	5,670.00	\$ 12	,960.00
\$ 4,36	60.00	Ş	2,180.00	\$ 4	,360.00
\$ 78	30.00	Ş	416.00	\$	572.00
\$ 2,08	30.00	Ş	1,820.00	\$ 1	,040.00
\$ 9,46	68.00	Ş	9,468.00	\$ 11	,835.00
\$ 31	12.00	Ş	208.00	Ş	520.00
\$ 57	0.00	Ş	380.00	Ş	760.00
\$ 66	60.00	Ş	440.00	\$	880.00
\$ 4,46	64.00	Ş	3,348.00	\$ 5.	,580.00
\$ 105,00	00.90	Ş	55,685.00	\$ 95.	,460.00
\$ 19,80	5.00	Ş	25,630.00	\$ 23.	,300.00
\$ 4,80	00.00	Ş	6,000.00	\$ 4	,000.000
\$ 15,36	60.00	Ş	9,600.00	\$ 19	,200.00
\$ 1,29	90.00	Ş	1,290.00	\$ 1	,935.00
\$ 5,85	52.00	Ş	5,225.00	\$ 6	,405.00
\$ 3,53	86.00	Ş	5,200.00	\$ 4	,160.00
\$ 1,69	96.00	Ş	1,590.00	\$ 3	,445.00
\$ 3,13	\$2.00	Ş	3,915.00	\$ 2.	,610.00
\$ 1,19	92.50	Ş	795.00	\$ 1.	,590.00
\$ 60	00.00	Ş	400.00	Ş	800.00
\$ 60	00.00	Ş	400.00	\$	800.00
\$ 2,84	10.00	Ş	887.50	\$ 2.	,840.00
\$ 36	60.00	Ş	225.00	Ş	450.00
\$ 6,06	68.00	Ş	4,100.00	\$ 1.	,640.00
\$ 2,72	20.00	Ş	2,040.00	\$ 2.	,720.00
\$ 3,40	00.00	Ş	4,080.00	\$ 4	,420.00
\$ \$	90.00	Ş	60.00	Ş	120.00
\$ 10	00.20	Ş	72.00	Ş	120.00
\$ 2,44	18.00	Ş	1,530.00	\$ <u>1</u>	,275.00
\$ 2,09	90.00	Ş	1,330.00	\$ 2	,850.00
\$ 1,10	00.00	Ş	740.00	Ş	980.00
\$ 8,64	15.00	Ş	9,170.00	\$,925.00
\$ 18	35.00	Ş	175.00	Ş	200.00
\$ 45	00.00 1	\$	450.00	Ş	375.00
\$ 82	5.00	s -	825.00	Ś	375.00
\$ 1,08	30.00	Ş	1,080.00	\$ 1	,350.00
\$ 44	10.00	Ş	440.00	\$	550.00
\$ 12	20.00	Ş	120.00	Ş	210.00
\$ 79	92.00	Ş	1,665.00	\$ 2.	,205.00
Ş		Ş		Ş	
\$ 1,00	00.00	Ş	750.00	Ş	750.00
\$ 39	95.00	Ş	335.00	\$	395.00
\$ 1,52	00.00	Ş	1,850.00	\$ 1	,125.00
\$ 2,30	00.00	Ş	2,175.00	\$ 2	,000.000
\$ 4,32	5.00	Ş	3,400.00	Ş Ş	,725.00
\$ 25	00.00	Ş	250.00	Ş	250.00

						I
Pb, Ni, Se, Ag, Tl, Zn, Sb, Be, Cd,	1	\$ 67. <u>5</u>	50 \$	45.00	\$ 90	0.00
Hg	1	\$ 12.(5 OC	20.00	\$ 15	5.00
Cr*3	1	\$ 27.5	50 \$	40.00	\$ 5C	0.00
Total Phenols-CLS	1	\$ 25.(\$ 00	70.00	\$ 25	5.00
8015	1	\$ 80.(\$ 00	150.00	\$ 10C	00.0
1613 full list	1	\$ 225.(\$ 00	275.00	\$ 25C	0.00
1,4 Dioxane	1	\$ 150.0	\$ 00	200.00	\$ 125	5.00
Cyanide	1	\$ 28.(\$ 00	20.00	\$ 40	00.0
Total P	1	\$ 17.0	\$ 00	25.00	\$ 20	00.0
8262-FBR / 504 EDB	1	\$ 50.(\$ 00	40.00	\$ 5C	0.00
608, 610, 624, 625 All NPDES CLS	1	\$ 420.(\$ 00	635.00	\$ 525	5.00
Total Residual Cl2	1	- \$	Ş	•	Ş	
Sulfate	24	\$ 8.(\$ 00	6.00	\$ 1C	0.00
EC or Conductivity	24	\$ 6.(\$ 00	5.00	\$ 1C	0.00
Ca	24	\$ 7.5	\$ 09	5.00	\$ 10	00.0
Amount to the fact when fact for a factor	والمسفو مسوا مساليت					

295.671.00	s	209.281.75	s	273,108,50	Ś
240.00	Ş	120.00	Ş	180.00	Ŷ
240.00	ŝ	120.00	Ş	144.00	ŝ
240.00	ŝ	144.00	Ş	192.00	Ś
	Ş		Ş		Ş
525.00	Ş	635.00	Ş	420.00	Ş
50.00	Ş	40.00	Ş	50.00	Ş
20.00	Ş	25.00	Ş	17.00	Ş
40.00	Ş	20.00	Ş	28.00	Ş
125.00	Ş	200.00	Ş	150.00	Ş
250.00	ŝ	275.00	\$	225.00	Ş
100.00	Ş	150.00	Ş	80.00	Ş
25.00	Ş	70.00	Ş	25.00	Ś
50.00	ŝ	40.00	\$	27.50	Ş
15.00	ŝ	20.00	\$	12.00	Ŷ
90.00	ŝ	45.00	Ş	67.50	ŝ

EXHIBIT D



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AGREEMENT FOR PROFESSIONAL SERVICES

This AGREEMENT FOR PROFESSIONAL SERVICES ("Agreement") effective as of this <u>5th</u> day of <u>November</u>, 2020 ("Effective Date") is by and between West Valley Water District ("District") and <u>Clinical Laboratory of San Bernardino, Inc</u> ("Consultant"). The District and Consultant may be collectively referred to as the "Parties" and individually as a "Party."

RECITALS

A. The Parties desire to enter into this Agreement for the purpose of setting forth the terms and conditions upon which Consultant shall provide certain services to District.

NOW, THEREFORE, THE PARTIES HEREBY AGREE AS FOLLOWS:

Section 1. Term of Agreement.

(a) Subject to subsection (b) below, the term of this Agreement will be for a period of one (1) year commencing on the Effective Date and terminating one (1) year after the Effective Date.

(b) This Agreement shall renew automatically for continuous one (1) year periods for no more than two (2) additional years, unless either Party, prior to the end of the existing one (1) year period, delivers written notice to the other Party, that the Agreement shall not be extended.

Section 2. Scope and Performance of Services.

2.1 (a) District may, from time to time, by written instructions from the general manager or assistant general manager of the District ("Authorized Representative") issue task orders ("Task Orders") to the Consultant. The Task Order shall be in such form and content as shall be set forth on Exhibit "A" attached hereto and by this reference incorporated herein. The Task Order shall set forth: (i) the scope of services to be performed by Consultant; (ii) the compensation to be paid to Consultant; and (iii) the time to complete the Task Order. The provisions of this Agreement shall apply to all such Task Orders.

(b) For each Task Order, Consultant shall confer, as requested, with District representatives to review progress of work elements, adherence to work schedule, coordination of work, scheduling of review and resolution of problems which may develop.

2.2 Consultant will furnish all of the labor, technical, administrative, professional and other personnel, all supplies and materials, equipment, printing,

vehicles, transportation, office space and facilities, and all tests, testing and analyses, calculation, and all other means whatsoever, except as otherwise expressly specified in this Agreement, necessary or proper to perform and complete the services required of Consultant under this Agreement.

- 2.3 Consultant's designated representative(s) who are authorized to act on its behalf and to make all decisions in connection with the performance of services under this Agreement are listed in Exhibit "B" attached hereto and by this reference incorporated herein ("Key Personnel").
- 2.4 Consultant represents and warrants that it has the qualifications, experience and facilities necessary to properly perform the services required under this Agreement in a thorough, competent and professional manner. Notwithstanding Section 3 below, in the event Consultant utilizes the services of subcontractors or sub-consultants, Consultant assumes sole and complete responsibility for the performance of the subcontractor or sub-consultant to the specifications provided hereunder for Consultant's work, and no adjustment will be made to Consultant's requirements under this Agreement for timely completion of services, complete performance of services, or delivery of products or deliverables in a timely fashion, and no adjustment will be made to performance deadlines, or compensation due to Consultant, due to or arising from issues Consultant may have with any subcontractor or sub-consultant. Consultant will at all times faithfully, competently and to the best of its ability, experience and talent, perform all services described in this Agreement. In meeting its obligations under this Agreement, Consultant shall employ, at a minimum, generally accepted standards and practices utilized by persons engaged in providing services similar to those required of Consultant under this Agreement.

Consultant warrants it will perform its engineering and design under the Task Order, as more particularly described in Exhibit A ("Task Order") in accordance with the current standards of care and diligence normally practiced by recognized engineering and design firms in performing services of a similar nature. Further, Consultant warrants that the engineering and design performed has been performed in accordance with the then current standards of care and diligence normally practiced by recognized engineering and design firms in performing services of a similar nature. If within one (1) year after substantial completion of the engineering and design work it is shown that there is an error in that work as a result of the Consultant's failure to meet those standards and the District has notified the Consultant in writing of any such error within that period, Consultant shall re-perform such engineering and design work within the original scope of such services, as may be necessary to remedy such error. All costs incurred by Consultant in performing such corrective services shall be the sole responsibility of the Consultant and such costs shall not be reimbursable in any way.

Section 3. Additional Services and Changes in Services

- **3.1** Consultant will not be compensated for any services rendered in connection with its performance of this Agreement that are in addition to or outside of those set forth in the Task Orders, unless such additional services are authorized in advance and in writing by District.
- **3.2** If Consultant believes that additional services are needed to complete a Task Order, Consultant will provide the Authorized Representative with written notification describing the proposed additional services, the reasons for such services, and a detailed proposal regarding cost.
- **3.3** District may order changes to a Task Order, consisting of additions, deletions, or other revisions, and the compensation to be paid Consultant will be adjusted accordingly. All such changes must be authorized in writing, and executed by Consultant and District. The cost or credit to District resulting from changes in a Task Order will be determined by the written agreement between the Parties.

Section 4. Familiarity with Services and Site.

- **4.1** By executing this Agreement, Consultant warrants that Consultant shall, prior to undertaking a Task Order:
 - (a) investigate and consider the services to be performed;
 - (b) carefully consider how and within what time frame the services should be performed;
 - (c) understand the facilities, difficulties, and restrictions attending performance of the services under a Task Order; and
 - (d) possesses all licenses required under local, state or federal law to perform the services contemplated by a Task Order, and maintain all required licenses during the performance of such Task Order.
- **4.2** If services involve work upon any site, Consultant warrants that Consultant has or will investigate the site and will be fully acquainted with the conditions there existing, before commencing its services under a Task Order. Should Consultant discover any latent or unknown conditions that may materially affect the performance of services, Consultant will immediately inform District of such fact and will not proceed except at Consultant's own risk until written instructions are received from the District.

Section 5. Compensation and Payment.

- **5.1** Subject to any limitations set forth in this Agreement, District agrees to pay Consultant the amounts shown in a Task Order.
- **5.2** Each month during the existence of a Task Order, Consultant shall furnish District with an original invoice for all services performed and expenses incurred during the preceding month in accordance with the fee schedule set forth in the Task Order. The invoice must detail charges by the following categories: labor (by subcategory), reimbursable costs, subcontractor contracts and miscellaneous expenses. The invoice must list, as applicable, the hours worked and hourly rates for each personnel category, the tasks performed, the percentage of the task completed during the billing period, the cumulative percentage completed for each task, and the total cost of the services.
- **5.3** District will independently review each invoice submitted by Consultant to determine whether the work performed and expenses incurred are in compliance with this Agreement. In the event that no charges or expenses are disputed, the invoice will be approved and paid. In the event any charges or expenses are disputed by District, the original invoice will be returned by District to Consultant for correction and resubmission.
- **5.4** Except as to any charges for work performed or expenses incurred by Consultant that are disputed by District, District will use its best efforts to cause Consultant to be paid within thirty (30) days of receipt of Consultant's invoice.
- **5.5** No payment or partial payment to Consultant shall constitute acceptance of any work completed by Consultant or waive any claims by the District for any reason whatsoever.

Section 6. <u>Required Documentation Prior to Performance</u>.

- 6.1 Consultant will not perform any services under this Agreement until:
 - (a) Consultant furnishes proof of insurance ("Insurance") as required under Exhibit "C" attached hereto and by this reference incorporated herein; and
 - (b) Consultant provides District with a Taxpayer Identification Number.
- **6.2** The District will have no obligation to pay for any services rendered by Consultant in advance of receiving written authorization to proceed for each Task Order, and Consultant acknowledges that any such services are at Consultant's own risk.

Section 7. <u>Project Documents</u>.

- **7.1** All original maps, models, designs, drawings, photographs, studies, surveys, reports, data, notes, computer programs, files and other documents (collectively, "Project Documents") prepared, developed or discovered by Consultant in the course of providing services under this Agreement will become the sole property of District and may be used, reused or otherwise disposed of by District without the permission of Consultant. Consultant will take such steps as are necessary to perfect or protect the ownership interest of District in such Project Documents. Upon completion, expiration or termination of this Agreement, Consultant shall turn over to District all such original Project Documents in its possession; provided, however, that Consultant may retain copies of Project Documents.
- **7.2** Except as necessary for the performance of services under this Agreement, no Project Documents prepared under this Agreement, will be released by Consultant to any other person or entity without District's prior written approval. All press releases, including graphic display information to be published, must be approved and distributed solely by District, unless otherwise agreed to in writing by District.

Section 8. Consultant's Books and Records.

- **8.1** Consultant shall maintain any and all documents and records demonstrating or relating to Consultant's performance of services under this Agreement. Consultant shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, or other documents or records evidencing or relating to work, services, expenditures and disbursements charged to District under this Agreement. Any and all such documents or records must be maintained in accordance with generally accepted accounting principles and must be sufficiently complete and detailed so as to permit an accurate evaluation of the services provided by Consultant under this Agreement. Any and all such documents or records must be maintained for three (3) years following the final payment for each Task Order.
- **8.2** Any and all records or documents required to be maintained by this section must be made available for inspection, audit and copying, at any time during regular business hours, upon written request by District or its designated representatives. Copies of such documents or records must be provided directly to District for inspection, audit and copying when it is practical to do so; otherwise, unless an alternative is mutually agreed upon, such documents and records must be made available at Consultant's address indicated for receipt of notices in this Agreement.

8.3 Where District has reason to believe that any of the documents or records required to be maintained by this section may be lost or discarded due to dissolution or termination of Consultant's business, District may, by written request, require that custody of such documents or records be given to a person or entity mutually agreed upon and that such documents and records thereafter be maintained by such person or entity at Consultant's expense. Access to such documents and records shall be granted to District, as well as to its successors-in-interest and authorized representatives.

Section 9. Status of Consultant.

- **9.1** Consultant is and will at all times remain a wholly independent contractor and not an officer or employee of District. Consultant has no authority to bind District in any manner, or to incur any obligation, debt or liability of any kind on behalf of or against District, whether by contract or otherwise, unless such authority is expressly conferred under this Agreement or is otherwise expressly conferred in writing by District.
- **9.2** The personnel performing the services under this Agreement on behalf of Consultant will at all times be under Consultant's exclusive direction and control. Neither District, nor any elected or appointed boards, officers, officials, employees or agents of District, will have control over the conduct of Consultant or any of Consultant's officers, subcontractors or subconsultants, employees or agents, except as provided in this Agreement. Consultant warrants that it will not at any time or in any manner represent that Consultant or any of Consultant's officers, employees or agents are in any manner officials, officers, employees or agents of District.
- **9.3** Neither Consultant, nor any of Consultant's officers, employees or agents, will obtain any rights to retirement, health care or any other benefits which may otherwise accrue to District's employees. Consultant expressly waives any claim to any such rights or benefits.

Section 10. Compliance with Applicable Laws.

Consultant shall keep itself informed of and comply with all applicable federal, state and local laws, statutes, codes, ordinances, regulations and rules in effect during the term of this Agreement.

Section 11. Conflicts of Interest.

Consultant covenants that neither Consultant, nor any officer, principal nor employee of its firm, has or will acquire any interest, directly or indirectly, that would conflict in any manner with the interests of District or that would in any way hinder Consultant's performance of services under this Agreement. Consultant further covenants that neither Consultant, nor any officer, principal or employee of its firm will make, participate in the making, or in any way attempt to use the position of Consultant to influence any decision of the District in which Consultant knows or has reason to know that Consultant, or any officer, principal or employee of Consultant has a financial interest as defined in Government Code section 87103.

Section 12. Confidential Information; Release of Information.

- **12.1** All information gained or work product produced by Consultant in performance of this Agreement will be considered confidential to the full extent permitted by law, unless such information is in the public domain or already known to Consultant. Consultant shall not release or disclose any such information or work product to persons or entities other than District without prior written authorization from an Authorized Representative, except as may be required by law.
- **12.2** Consultant, its officers, employees, or agents, shall not, without prior written authorization from an Authorized Representative or unless requested by the District counsel, voluntarily provide declarations, letters of support, testimony at depositions, response to interrogatories or other information concerning the work performed under this Agreement. Response to a subpoena or court order will not be considered "voluntary" provided Consultant gives District notice of such court order or subpoena.
- **12.3** If Consultant, or any officer, employee, or agent of Consultant, provides any information or work product (including Project Documents) in violation of this Agreement, then District shall have the right to reimbursement and indemnity from Consultant for any damages, costs and fees, including attorneys' fees related to any unauthorized disclosure by consultant or, caused by or incurred as a result of Consultant's conduct.
- **12.4** Consultant shall promptly notify District should, Consultant, its officers, employees, or agents be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions or other discovery request, court order or subpoena from any party regarding this Agreement and the services performed under this Agreement. District retains the right, but has no obligation, to represent Consultant or be present at any deposition, hearing or similar proceeding. Consultant agrees to cooperate fully with District and to provide District with the opportunity to review any response to discovery requests provided by

Consultant. However, this right to review any such response does not imply or mean the right by District to control, direct, or rewrite such response.

Section 13. Indemnification.

Consultant covenants and agrees that, during the term of this Agreement, any injury suffered as a result of Consultant's services shall be the sole responsibility of Consultant and its successors and assigns and District shall not be liable to Consultant, or any other person or persons whatsoever for any such injury, loss or damage to persons or property unless caused by the negligence or intentional acts of District or its Representatives (as solely defined below). Consultant shall defend, indemnify and hold District, its officers, directors and Representatives ("District Indemnitees") harmless from and against any and all claims, costs, liabilities, debts, demands, suits, actions, causes of action, obligations, proceedings, damages, judgments, liens and expenses of whatever nature, including attorneys' fees and disbursements (collectively, "Claims") which may be made against the District Indemnitees arising out of or in connection with (a) the retention by District of Consultant's services; (b) the performance of or failure to perform, the work covered by this Agreement which is caused or occasioned by any act, action, neglect on the part of Consultant, or its Representatives, in the performance of this Agreement and the work to be done under this Agreement; (c) the death and/or injury to any person or damage to any property (real or personal) and/or economic loss which may be caused or is claimed to have been caused, by the negligence, act or omission of Consultant or its Representatives or its or their property; (d) any violation or alleged violation by Consultant of any law or regulation now or hereafter enacted; and (e) any breach by Consultant of its obligations under this Agreement. The foregoing indemnity shall not apply to the extent any such Claims are ultimately established by a court of competent jurisdiction to have been caused by the negligence or willful misconduct of the District Indemnitees or any of them. District shall make all decisions with respect to its representation in any legal proceeding concerning this section. If Consultant fails to do so, District shall have the right, but not the obligation, to defend the same and charge all of the direct or incidental Claims of such defense, including attorneys' fees and costs, to Consultant and to recover the same from Consultant. The term "Representatives" shall mean employees, representatives, agents, contractors, subcontractors or any other persons directly or indirectly employed by any one of the foregoing or reasonably under the control of any of the foregoing or for whose acts any of the foregoing may be liable.

Section 14. Insurance.

Consultant agrees to obtain and maintain in full force and effect during the term of this Agreement the Insurance coverages listed in Exhibit "C." All Insurance policies

shall be subject to approval by District as to form and content. These requirements are subject to amendment or waiver if so approved in writing by an Authorized Representative.

Section 15. Assignment.

- **15.1** The expertise and experience of Consultant are material considerations for this Agreement. District has an interest in the qualifications of and capability of the persons and entities that will fulfill the duties and obligations imposed upon Consultant under this Agreement. Consultant may not assign or transfer this Agreement or any portion of this Agreement or the performance of any of Consultant's duties or obligations under this Agreement without the prior written consent of District. The District can withhold its approval/consent in its sole and absolute discretion. Any attempted assignment will be null and void, and will constitute a material breach of this Agreement entitling District to any and all remedies at law or in equity, including summary termination of this Agreement.
- **15.2** Consultant must obtain District's prior written approval before utilizing any subcontractors to perform any services under this Agreement, which approval may be withheld in District's sole and absolute discretion. This written approval must include the identity of the subcontractor and the terms of compensation. Approval by District does not imply any agreement to or endorsement by the District as to the competency or capability of any proposed subcontractor or sub-consultant, and District reserves any and all rights against both Consultant and such subcontractor or sub-consultant , for any failure to perform or other breach of any of the provisions of this Agreement, or the standards of performance defined herein, and no waiver is intended or to be implied by District's approval of any subcontractor or sub-consultant.

Section 16. Termination of Agreement.

- **16.1** District may terminate this Agreement, with or without cause, at any time by written notice of termination to Consultant. In the event such notice is given, Consultant shall cease immediately all work in progress.
- **16.2** Upon termination of this Agreement, all property belonging exclusively to District which is in Consultant's possession must be returned to District. Consultant shall promptly deliver to District a final invoice for all outstanding services performed and expenses incurred by Consultant as of the date of termination. Compensation for work in progress not based on an hourly rate will be prorated based on the percentage of work completed as of the date of termination.

16.3 Consultant acknowledges District's right to terminate this Agreement as provided in this section, and hereby waives any and all claims for damages that might otherwise arise from District's termination of this Agreement.

Section 17. Notices.

- **17.1** All written notices required or permitted to be given under this Agreement will be deemed made when received by the other Party at its respective address as follows:
- To District:West Valley Water District
855 West Base Line Road
P. O. Box 920
Rialto, CA 92377
Attention: Clarence C. Mansell, Jr.
General Manager(Tel.)909-875-1804
(Fax)
909-875-1849To Consultant:Clinical Laboratory of San Bernardino
21881 Barton Rd
San Bernardino, CA 92402
(909) 825-7693
 - (909) 825-7693 Attn: Bob Glaubig, Laboratory Director glaubig@clinical-lab.com

** Please send all invoices by:

Email: apinvoices@wvwd.org

or

- Mail: West Valley Water District Accounts Payable P.O. Box 190 Rialto, CA 92377
- **17.2** Notice will be deemed effective on the date personally delivered or transmitted by facsimile. If the notice is mailed, notice will be deemed given three (3) days after deposit of the same in the custody of the United States Postal Service, postage prepaid, for first class delivery, or upon delivery if using a major courier service with tracking capabilities.

17.3 Any Party may change its notice information by giving notice to the other Party in compliance with this section.

Section 18. General Provisions.

- **18.1** Authority to Execute. Each Party represents and warrants that all necessary action has been taken by such Party to authorize the undersigned to execute this Agreement and to bind it to the performance of its obligations hereunder.
- **18.2 Binding Effect.** Subject to Section 15, this Agreement is binding upon the heirs, executors, administrators, successors and assigns of the Parties, including any subcontractors or sub-consultants of Consultant.
- **18.3** Entire Agreement. This Agreement, including the attached Exhibits "A" through "C," is the entire, complete, final and exclusive expression of the Parties with respect to the matters addressed in this Agreement and supersedes all other agreements or understandings, whether oral or written, between Consultant and District prior to the execution of this Agreement.
- **18.4 Modification of Agreement.** No amendment to or modification of this Agreement will be valid unless made in writing and approved by Consultant and approved in writing by the Board of Directors of the District, or in writing by the General Manager, if such power has been delegated to General Manager. The Parties agree that this requirement for written modifications cannot be waived and that any attempted waiver will be void.
- **18.5** Facsimile Signatures. Amendments to this Agreement will be considered executed when the signature of a Party is delivered by facsimile transmission. Such facsimile signature will have the same effect as an original signature.
- **18.6** Waiver. Waiver by any Party to this Agreement of any term, condition, or covenant of this Agreement will not constitute a waiver of any other term, condition, or covenant. Waiver by any Party of any breach of the provisions of this Agreement will not constitute a waiver of any other provision, or a waiver of any subsequent breach or violation of any provision of this Agreement. Acceptance by District of any services by Consultant will not constitute a waiver of any of the provisions of this Agreement.
- **18.7 Interpretation.** This Agreement will be interpreted, construed and governed according to the laws of the State of California. Each Party has had the opportunity to review this Agreement with legal counsel. The Agreement will be construed simply, as a whole, and in accordance with its fair meaning, and without resort to rules regarding draftsmanship. It will not be interpreted strictly for or against either Party.

- **18.8** Severability. If any provision of this Agreement shall be ruled invalid, illegal or unenforceable, the Parties shall: (a) promptly negotiate a substitute for the provisions which shall to the greatest extent legally permissible, effect the intent of the Parties in the invalid, illegal or unenforceable provision, and (b) negotiate such changes in, substitutions for or additions to the remaining provisions of this Agreement as may be necessary in addition to and in conjunction with subsection (a) above to give effect to the intent of the Parties without the invalid, illegal or unenforceable provision. To the extent the Parties are unable to negotiate such changes, substitutions or additions as set forth in the preceding sentence, and the intent of the Parties with respect to the essential terms of the Agreement may be carried out without the invalid, illegal or unenforceable provisions, the balance of this Agreement shall not be affected, and this Agreement shall be construed and enforced as if the invalid, illegal or unenforceable provisions did not exist.
- **18.9 Venue.** The Parties agree any action or proceeding to enforce or relating to this Agreement shall be brought exclusively in the federal court located in Riverside County, California or state court located in San Bernardino County, California and the Parties hereto consent to the exercise of personal jurisdiction over them by such courts for purposes of any such action or proceeding.
- **18.10 Disputes.** If any disputes should arise between the Parties concerning the work to be done under this Agreement, the payments to be made, or the manner of accomplishment of the work, Consultant shall nevertheless proceed to perform the work as directed by District pending settlement of the dispute.
- **18.11 Cooperation.** Consultant shall cooperate in the performance of work with District and all other agents.
- **18.12 Time of Essence.** Time shall be of the essence as to all dates and times of performance contained in this Agreement.
- **18.13 Counterparts.** This Agreement may be signed and delivered in any number of counter parts, each of which, when signed and delivered, shall be an original, but all of which shall together constitute one and the same Agreement.

3.3.d

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed effective as of the day and year first above written.

DISTRICT:

WEST VALLEY WATER DISTRICT, a public agency of the State of California

By _____ Clarence C. Mansell, Jr., General Manager

By___

Peggy Asche, Board Secretary

APPROVED AS TO FORM:

TAFOYA LAW GROUP, APC

By _____ Robert Tafoya

CONSULTANT:

Clinical Laboratory of San Bernardino, Inc

Ву_____

Name_____

Its_____

<u>EXHIBIT A</u>

TASK ORDER

TASK ORDER NO. <u>1</u>

This Task Order ("Task Order") is executed this <u>5th</u> day of <u>November</u>, 2020 by and between West Valley Water District, a public agency of the State of California ("District") and <u>Clinical Laboratory of San Bernardino</u>, Inc ("Consultant").

RECITALS

- A. On or about <u>November 5</u>, 2020 District and Consultant executed that certain Agreement for Professional Services ("Agreement").
- B. The Agreement provides that the District will issue Task Orders from time to time, for the provision of certain services by Consultant.
- C. Pursuant to the Agreement, District and Consultant desire to enter into this Task Order for the purpose of setting forth the terms and conditions upon which Consultant shall render certain services to the District.

NOW, THEREFORE, THE PARTIES HERETO HEREBY AGREE AS FOLLOWS:

1. Consultant agrees to perform the services set forth on Exhibit "1" attached hereto and by this reference incorporated herein.

2. Subject to any limitations in the Agreement, District shall pay to Consultant the amounts specified in Exhibit "2" attached hereto and by this reference incorporated herein. The total compensation, including reimbursement for actual expenses, may not exceed the amount set forth in Exhibit "2," unless additional compensation is approved in writing by the District.

3. Consultant shall perform the services described in Exhibit "1" in accordance with the schedule set forth in Exhibit "3" attached hereto and by this reference incorporated herein. Consultant shall commence work immediately upon receipt of a notice to proceed from the District. District will have no obligation to pay for any services rendered by Consultant in advance of receipt of the notice to proceed, and Consultant acknowledges that any such services are at Consultant's own risk.

4. The provisions of the Agreement shall apply to this Task Order. As such, the terms and conditions of the Agreement are hereby incorporated herein by this reference.

[SIGNATURES APPEAR ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the parties have caused this Task Order to be executed effective as of the day and year first above written.

DISTRICT:

WEST VALLEY WATER DISTRICT, a public agency of the State of California

Clarence C. Mansell Jr., General Manager

Peggy Asche, Board Secretary

CONSULTANT:

Clinical Laboratory of San Bernardino

Ву	а
Name	

lts_____

Ву		
Name	 	
lts		

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EXHIBIT "1"

то

TASK ORDER NO. <u>1</u>

SCOPE OF SERVICES

Consultant is a qualified laboratory that will be performing the analysis, quality control, reporting, and electronic data deliverables on behalf of the District (both to Division of Drinking Water (DDW) and WaterTrax) for the duration of this contract, with a quick turn-around time while providing excellent customer service.

EXHIBIT "2"

то

TASK ORDER NO. _1__

COMPENSATION

Analytical Fee Schedule

Current West Valley Water District

Bid Date: September 17, 2020

			TAT	Unit
Matrix	Parameters	Method	(days)	Price (\$)
Water	Corrosivity w/field pH Panel	varies	8	25.00
Water	Corrosivity w/Field pH, GM Panel	varies	8	25.00
Water	Corrosivity w/o Field pH Panel	varies	8	25.00
Water	Corrosivity w/o Field pH Panel w/GM	varies	8	25.00
Water	General Mineral	varies	8	90.00
Water	General Physical	varies	8	12.00
Water	Inorganic Chemical Panel	varies	8	110.00
Water	Total Hardness Calculated	EPA 200.7	8	10.00
Water	UV Analysis Panel	varies	8	35.00
Water	DO - Dissolved Oxygen-Field*	Field	8	N/C
Water	Field Chlorine Residual - Free*	Field	8	N/C
Water	Field Electrical Conductivity*	Field	8	N/C
Water	Field pH*	Field	8	N/C
Water	Field Temperature (°C)*	Field	8	N/C
Water	Field Temperature (°F)*	Field	8	N/C
Water	Field Turbidity*	Field	8	N/C
Water	10 Tube Multiple Tube Fermentation	SM 9221	8	15.00
Water	15 Tube MPN (Total/Fecal Coliform)	SM 9221	8	15.00
Water	9223 Coliform Quantitray	SM 9223	8	8.00
Water	9223 LT2 Quantitray	SM 9223	8	6.75
Water	Heterotrophic Plate Count	SM9215B	8	5.00
Water	Presence/Absence	SM 9223	8	6.75
Water	Total Coliform/Ecoli (Enumeration)	SM 9223	8	8.00
Water	Cryptosporidium by LT2 (1)	EPA 1622	15	420.00
Water	Color	SM 2120BM	8	4.00

Water	Odor	EPA 140.1-M	8	4.00
Water	True Color (filtered)	SM 2120BM	8	4.00
Water	Turbidity	EPA 180.1	8	4.00
Water	UV254 - Abs	SM 5910B	8	35.00
Water	Ammonia Digestion by Lachat	EPA 350.1	8	15.00
Water	Bicarbonate	SM 2320 B	8	5.00
Water	Biochemical Oxygen Demand	SM 5210B	8	30.00
Water	Bromate (2)	EPA 300.1	8	60.00
Water	Bromide (2)	EPA 300.1	8	55.00
Water	Biochemical Oxygen Demand-Carbonaceous	SM 5210B	8	30.00
Water	Carbonate	SM 2320B	8	5.00
Water	Chemical Oxygen Demand	HACH 8000	8	15.00
Water	Chlorate (2)	EPA 300.1	8	60.00
Water	Chloride	EPA 300.0	8	6.00
Water	Chlorite (2)	EPA 300.1	8	60.00
Water	Cyanide	SM 4500CN-F	8	20.00
Water	Dissolved Organic Carbon	SM 5310BM	8	17.50
Water	Dissolved Oxygen	SM 4500-OG	8	15.00
Water	Electrical Conductivity	SM 2510B	8	5.00
Water	Fluoride	EPA 300.0	8	6.00
Water	Hydroxide	SM 2320B	8	5.00
Water	Kjeldahl Nitrogen	EPA 351.2	8	7.50
Water	MBAS	SM 5540C	8	25.00
Water	Nitrate	EPA 300.0	8	6.00
Water	Nitrate	EPA 353.2	8	6.00
Water	Nitrate	EPA 300.0	8	6.00
Water	Nitrate	EPA 353.2	8	6.00
Water	Nitrate/Nitrite	EPA 300.0	8	12.00
Water	Nitrite as N	EPA 300.0	8	6.00
Water	Nitrite as N	EPA 353.2	8	6.00
Water	Nitrogen, Inorganic	Calc	8	25.00
Water	Nitrogen, Total	Calc	8	25.00
Water	Oil & Grease	EPA 1664A	8	55.00
Water	Ortho-Phosphate-P (PO4-P) E365.2/H8048	HACH 8048	8	10.00
Water	Perchlorate	EPA 314.0	8	17.50
Water	Perchlorate	EPA 314.0	4-hr	52.50
Water	Perchlorate	EPA 314.0	24-hr	35.00
Water	рН	SM 4500HB	8	4.00
Water	Phosphorus - Ortho	HACH 8048	8	10.00
Water	Phosphorus - Total	HACH 8190	8	25.00
Water	Phosphorus - Total as P	HACH 8190	8	25.00
Water	Settleable Solids	SM 2540F	8	10.00
Water	Sulfate	EPA 300.0	8	6.00
Water	Sulfide	SM 4500S2D	8	10.00
Water	Sulfide, Dissolved	SM 4500S2D	8	10.00
Water	Suspended Solids	SM 2540D	8	15.00

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Water	Total Alkalinity	SM 2320B	8	5.00
Water	Total Dissolved Solids	SM 2540C	8	15.00
Water	Total Organic Carbon	SM 5310B	8	17.50
Water	Total Petroleum Hydrocarbons	EPA 1664A	8	40.00
Water	Total Solid	SM 2540B	8	15.00
Water	Aluminum	EPA 200.7	8	5.00
Water	Antimony	EPA 200.8	8	5.00
Water	Arsenic	EPA 200.8	8	5.00
Water	Barium	EPA 200.7	8	5.00
Water	Beryllium	EPA 200.8	8	5.00
Water	Boron	EPA 200.7	8	5.00
Water	Cadmium	EPA 200.8	8	5.00
Water	Calcium	EPA 200.7	8	5.00
Water	Chromium	EPA 200.8	8	5.00
Water	Chromium Hexavalent	EPA 218.6	8	35.00
Water	Chromium Trivalent	Calc	8	40.00
Water	Cobalt	EPA 200.7	8	5.00
Water	Copper	EPA 200.7	8	5.00
Water	Iron	EPA 200.7	8	5.00
Water	Iron & Manganese	EPA 200.7	8	10.00
Water	Lead (School Program)	EPA 200.8	8	11.00
Water	Lead (School Program)	SM 3113B	8	11.00
Water	Lead	EPA 200.8	8	5.00
Water	Lead & Copper	EPA 200.8 / 200.7	8	10.00
Water	Magnesium	EPA 200.7	8	5.00
Water	Manganese	EPA 200.7	8	5.00
Water	Mercury	EPA 200.8	8	20.00
Water	Molybdenum	EPA 200.7	8	5.00
Water	Nickel	EPA 200.8	8	5.00
Water	Potassium	EPA 200.7	8	5.00
Water	Selenium	EPA 200.8	8	5.00
Water	Silica	EPA 200.7	8	5.00
Water	Silver	EPA 200.8	8	5.00
Water	Sodium	EPA 200.7	8	5.00
Water	Thallium	EPA 200.8	8	5.00
Water	Vanadium	EPA 200.8	8	5.00
Water	Zinc	EPA 200.7	8	5.00
Water	Gross Alpha	SM 7110C	8	35.00
Water	Gross Alpha / Beta (3)	EPA 900.0	15	70.00
Water	Gross Beta (3)	EPA 900.0	15	35.00
Water	Radon (4)	Radon	15	60.00
Water	Uranium (Radiological)	EPA 200.8	8	25.00
Water	Uranium (3)	EPA 908.0	15	50.00
Water	MTBE	EPA 524.2	8	12.50
Water	MTBE & Benzene	EPA 524.2	8	25.00
Water	MTBE Benzene PCF	EPA 524 2	8	25.00
vvalor				

Water	MTBE, Benzene, PCE, TCE	EPA 524.2	8	25.00
Water	PCE/TCE	EPA 524.2	8	25.00
Water	Purgeable Organics	EPA 524.2	8	100.00
Water	TCE+Trihalomethanes	EPA 524.2	8	35.00
Water	Tetrachloroethlyene	EPA 524.2	8	12.50
Water	Trichloroethylene	EPA 524.2	8	12.50
Water	DBCP	EPA 504.1	8	40.00
Water	EDB/ DBCP	EPA 504.1	8	40.00
Water	1,2,3-TCP	SRL 524M-TCP	8	35.00
Water	Carbamates	EPA 531.1	8	70.00
Water	Chlorinated Acid Herbicides	EPA 515.4	8	90.00
Water	Diquat	EPA 549.2	8	90.00
Water	Endothall	EPA 548.1	8	70.00
Water	Glyposate	EPA 547	8	70.00
Water	Pesticides / PCB	EPA 508.1	8	75.00
Water	Semi-Volatile Organic Compounds	EPA 525.2	8	150.00
Water	Triazine Pesticides	EPA 507	8	105.00
Water	Trihalomethanes	EPA 524.2	8	30.00
Water	THM Max Potiential	EPA 510.1	8	40.00
Water	Haloacetic Acid 5	EPA 552.2	8	60.00
Water	Haloacetic Acid Max Pot	EPA 552.2	8	60.00
Water	1,4-Dioxane (4)	EPA 8270	15	200.00
Water	Acute Toxicity - % Survival (5)	EPA-821-R-02-012	15	250.00
Water	Asbestos (6)	EPA 100.2	15	150.00
Water	Dioxin (4)	EPA 1613B	15	275.00
Water	Dioxin in Wastewater (7)	EPA 1613B	15	650.00
Water	Geosmin and MIB (8)	SM 6040D	15	250.00
Water	NDMA (4)	EPA 521	15	300.00
Water	Nitrosamines (4)	EPA 521	15	300.00
Water	Organochlorine Pesticide (2)	EPA 608	8	105.00
Water	Organochlorine Pesticides (2)	EPA 8081	8	150.00
Water	Phenolic Compounds (2)	EPA 420.4	8	70.00
Water	Polychlorinated Biphenyls (2)	EPA 8082	8	150.00
Water	Purgeable Organics (2)	EPA 624	8	135.00
Water	Radium 226 (3)	EPA 903.0	15	115.00
Water	Radium 228 (3)	EPA 900.0	15	160.00
Water	Semi-Volatile Organics (2)	EPA 625	8	290.00
Water	Semi-Volatile Organics (2)	EPA 8270	8	225.00
Water	Speciation (4)	Focus 52235	15	75.00
Water	Strontium 90 (3)	EPA 905.0	15	200.00
Water	TPH-Gas/Diesel Range (2)	EPA 8015	8	150.00
Water	Tritium (3)	EPA 906.0	15	100.00
Water	Volatile Organics (2)	EPA 8260B	8	110.00
Water	Volatile Organics-TCE ONLY (2)	EPA 8260B	8	80.00

3.3.d

TOTAL

*All results from the field that are included on the Chain of Custody, such as temperature and pH, need to be included on the final report.

- (1) Subcontract Lab: Cel Analytical
- (2) Subcontract Lab: CLS Lab
- (3) Subcontract Lab: Davi Lab
- (4) Subcontract Lab: Weck Lab
- (5) Subcontract Lab: Aquatic Bioassay
- (6) Subcontract Lab: LA Testing
- (7) Subcontract Lab: Pace Analytical
- (8) Subcontract Lab: Eurofin Analytical

EXHIBIT "3"

то

TASK ORDER NO. <u>1</u>

SCHEDULE

Schedule to be determined by District staff.

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EXHIBIT B

KEY PERSONNEL

Consultant's designated representative(s) who are authorized to act on its behalf and to make all decisions in connection with the performance of services under this Agreement are:

Bob Glaubin – Laboratory Director

Stu Styles - Client Services Manager

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EXHIBIT C

INSURANCE

Rev. 12/17/19 Master Copy

INSURANCE

A. **General Requirements**. Before commencing the performance of services under this Agreement, and at all other times this Agreement is effective, Consultant must procure and maintain the following types of insurance with coverage limits complying, at a minimum, with the limits set forth below:

Type of Insurance	Limits (combined single)
Commercial General Liability:	\$1,000,000
Business Automobile Liability	\$1,000,000
Professional Liability	\$1,000,000
Workers Compensation	Statutory Requirement

- B. **Commercial General Liability Insurance**. The amount of insurance set forth above must be a combined single limit per occurrence for bodily injury, personal injury, and property damage for the policy coverage. The insurance must be on an "occurrence" not a "claims made" basis.
- C. **Business Automobile Insurance**. Automobile coverage must be written on forms subject to the written approval of District.
- D. **Professional Liability Insurance**. This coverage must be on an "occurrence" basis, including coverage for contractual liability. The Professional Liability Insurance required by this Agreement must be endorsed to be applicable to claims based upon, arising out of or related to services performed under this Agreement.
- E. **Workers Compensation**. Consultant must have a State of California approved policy form providing the statutory benefits required by law with employer's liability limits of no less than \$1,000,000 per accident for all covered losses, or Consultant must provide evidence of an approved self-insurance program.
- F. Additional Insureds. Each Commercial General Liability Insurance policy and Business Auto Insurance policy must provide that the <u>District</u>, its officials, officers, <u>employees</u>, agents and volunteers are "additional insureds" under the terms of the policy, and must provide that an act or omission of one the insureds will not reduce or avoid coverage to the other insureds.
- G. **Deductibles and Self-Insured Retention**. Any deductibles or self-insured retentions applicable to the insurance policies required under this Agreement must be declared to and approved by District. In no event may any required insurance policy have a deductible, self-insured retention or other similar policy provision in excess of \$50,000 without prior written approval by District in its sole discretion. At the option of District, either the insurer will reduce or eliminate such deductibles or self-insured retentions with respect to the District's additional insureds or Consultant will procure a bond guaranteeing payment of any losses, damages, expenses, costs or settlements up to the amount of such deductibles or self-insured retentions.

- H. **Primary Insurance**. Each of the insurance policies maintained by Consultant under this Agreement must state that such insurance will be deemed "primary" so that any insurance that may be carried by District will be deemed excess to that of Consultant. This endorsement must be reflected on forms as determined by District.
- I. Certificates of Insurance and Endorsements. Prior to commencing any services under this Agreement, Consultant must file with the District certificates of insurance and endorsements evidencing the existence of all insurance required by this Agreement, along with such other evidence of insurance or copies of policies as may reasonably be required by District. These certificates of insurance and endorsements must be in a form approved by the Legal Counsel. Consultant must maintain current certificates and endorsements on file with District during the term of this Agreement reflecting the existence of all required insurance. Each of the certificates must expressly provide that no material change in the policy, or termination thereof, will be effective except upon 30 days' prior written notice to District by certified mail, return receipt requested. The delivery to District of any certificates of insurance or endorsements that do not comply with the requirements of this Agreement will not waive the District's right to require compliance.
- J. **Insurance Rating**. All insurance required to be maintained by Consultant under this Agreement must be issued by companies licensed by or admitted to conduct insurance business in the State of California by the California Department of Insurance and must have a rating of A or better and Class VII or better by the latest edition of A.M. Best's Key Rating Guide.
- K. **Aggregate Limits**. The aggregate limits for each insurance policy required under this Agreement must apply separately and solely to the services performed under this Agreement. If the required policies do not have an endorsement providing that the aggregate limit applies separately to the services being performed, or if defense costs are included in the aggregate limit, then the required aggregate limits must be increased to an amount satisfactory to District.
- L. **Waiver of Subrogation Rights**. Consultant and each insurer providing any insurance required by this Agreement must waive all rights of subrogation against District, its officials, officers, employees, agents and volunteers, and each insurer must issue a certificate to the District evidencing this waiver of subrogation rights.
- M. **Failure to Maintain Required Insurance**. If Consultant, for any reason, fails to obtain and maintain the insurance required by this Agreement, District may obtain such coverage at Consultant's expense and deduct the cost of such insurance from payments due to Consultant under this Agreement or may terminate the Agreement.
- N. Effect of Coverage. The existence of the required insurance coverage under this Agreement shall not be deemed to satisfy or limit Consultant's indemnity obligations under this Agreement. Consultant acknowledges that the insurance coverage and policy limits set forth in this Agreement constitute the minimum coverage and policy limits required. Any insurance proceeds available to District

in excess of the limits and coverage required by this Agreement, and which is applicable to a given loss, must be made available to District to compensate it for such losses.



BOARD OF DIRECTORS ENGINEERING, OPERATIONS AND PLANNING COMMITTEE STAFF REPORT

DATE:	October 14, 2020
TO:	Engineering, Operations and Planning Committee
FROM:	Clarence C. Mansell Jr., General Manager
SUBJECT:	CONSIDER A PROFESSIONAL SERVICES AGREEMENT AND TASK ORDER NO. 1 WITH MICHAEL BAKER INTERNATIONAL FOR THE PROFESSIONAL ENGINEERING SERVICES FOR DEVELOPMENT OF CONSTRUCTION BID DOCUMENTS FOR WATER MAIN REPLACEMENT, CONSTRUCTION MANAGEMENT, AND INSPECTION SERVICES FOR THE INTERSTATE 10 CEDAR AVENUE INTERCHANGE IMPROVEMENT PROJECT

BACKGROUND:

The West Valley Water District ("District") requested proposals for qualified and experienced engineering firms to provide professional engineering services for the Development of Construction Bid Documents for Water Main Replacement, Construction Management, and Inspection Services for the Interstate 10 Cedar Avenue Interchange Improvement Project ("I-10 Cedar Avenue Interchange Improvement"). The I-10 Cedar Avenue Interchange Improvement Project is required by the San Bernardino County Transportation Authority ("SBCTA") and San Bernardino County, in cooperation with the California Department of Transportation ("Caltrans") and the Federal Highway Administration, to improve the I-10/Cedar Avenue interchange in the unincorporated community of Bloomington. The proposed project will widen the Cedar Avenue Overcrossing Bridge ("Cedar Avenue Bridge OC"), Union Pacific Railroad ("UPRR")/Cedar Avenue Overhead Bridge ("Cedar Avenue Bridge OH"), Cedar Avenue, and modify the existing entrance and exit ramps to improve the turning maneuverability and storage capacity. The widening of the I-10 Cedar Avenue Interchange Improvement Project is of critical importance to SBCTA and WVWD to reduce traffic congestion at the interchange. Construction is scheduled to begin in August 2021.

WVWD's water facilities are located within SBCTA's proposed improvements along Cedar Avenue between Bloomington Avenue and Orange Street. Approximately 2,600 linear feet of 12-inch water main and 1,300 linear feet of 8-inch water main will need to be replaced. On the Cedar Avenue Bridge OC and OH, the 8-inch water main is in a 16-inch steel casing and the 12-inch water main is in a 20-inch steel casing and as part of the bridge widening project, will need to be replaced. WVWD has prior water rights and has existing agreements with the State of California. This Project will be funded by SBCTA and will be required to coordinate all Work with SBCTA for review and approval. A Caltrans permit and a UPRR permit will be required. Work requires relocating the existing water main, meters, valves, and a fire hydrant. The I-10 Cedar Avenue Interchange Improvement Project will be constructed in two (2) stages; Stage 1 will be constructed first and

Stage 2 will follow. Stage 1 will include all Work on the easterly side of Cedar Avenue from Bloomington Avenue to Orange Street. Stage 2 will include all Work on the westerly side of Cedar Avenue from Bloomington Avenue to Orange Street. Attached as **Exhibit A** is the I-10 Cedar Avenue Interchange Improvement Project Exhibit.

WVWD will be the lead agency on the project Management and the selection and retention of the consultant for the professional services. Performance of services under the consultant contract shall be subject to the technical direction of WVWD, with input and consultation from SBCTA. Staff is coordinating agreements for this project which includes a Utility Agreement between SBCTA and WVWD and will be executed at a future date. A copy of this Draft Utility Agreement is included in **Exhibit B**. SBCTA shall pay the actual and necessary cost of the I-10 Cedar Avenue Interchange Improvement Project and reimburse WVWD.

DISCUSSION:

District Staff posted the Request for Proposal ("RFP") on PlanetBids and sent out the RFP to seven (7) consulting firms. On October 1, 2020, the District received (2) proposals in response to the RFP from two (2) consulting firms – Engineering Resources of Southern California, Inc. ("ERSC") and Michael Baker International ("MBI").

The written proposals were reviewed by a committee comprised of District Staff and were evaluated based on the following criteria:

- Past performance and qualifications of the proposal team members on similar projects.
- Familiarity with and capacity to handle all aspects of the work.
- Ability to complete the project within an expedited time frame.
- The proposed project approach, scope, manner, and thoroughness in which it is presented in the proposal.
- Firm's experience, staff availability, and financial responsibility.
- Consultant fees.

The two (2) proposals which were received were similar in qualifications and technical expertise. Each of their proposed costs for engineering design services for the project are shown below:

Consultant	Cost
ERSC	\$407,310.00
MBI	\$355,884.00

In order to determine the best value for the District, Staff first ensured that all proposals received met the minimum requirements in the scope of work by conducting a systematic proposal evaluation. Based on technical qualifications, overall evaluation, and costs, Staff concluded that MBI provided the best value for the District's needs for the I-10 Cedar Project. The firm's design approach and overall understanding of the project's goals, further aided in the selection process for the RFP. Attached as **Exhibit C** is the District Professional Services Agreement and **Exhibit D** is the Task Order No. 1 with MBI which includes the submitted Proposal.

FISCAL IMPACT:

The cost to perform the I-10 Cedar Avenue Interchange Improvement Project as proposed by MBI is \$355,884.00 and additional funds will be required to cover the Caltrans and UPRR permit for a total not to exceed \$360,884.00. This item was included in the Fiscal Year 2020/21 Capital Improvement Budget under the W19055 I-10 Cedar Avenue Interchange Project and additional funds will be needed. The District's Capital Improvement Project W19008 Zone 8 - Reservoir 8-3 has funds available to transfer. The funds will be reimbursed to the W19008 Project once the Utility Agreement is executed with SBCTA. A summary of the requested budget transfer is as follows:

CIP FY 2020-2021 Project Name	Current Budget	Contract Cost	Transfer From/To	Remaining Budget
W19008 Zone 8 - Reservoir 8-3	\$3,922,500.00	\$0.00	(\$312,955.00)	\$3,609,545.00
W19055 I-10 Cedar Avenue Interchange Project	\$47,929.00	\$360,884.00	\$312,955.00	\$0.00

STAFF RECOMMENDATION:

It is recommended that the Board of Directors approve a Professional Services Agreement and Task Order No. 1 with MBI for the W19055 I-10 Cedar Avenue Interchange Improvement Project as proposed by MBI for the amount of \$355,884.00 plus the additional \$5,000.00 for permit fees for a total cost of \$360,884.00 and authorize the General Manager to execute the necessary documents.

BP:pa

ATTACHMENT(S):

- 1. Exhibit A I-10 Cedar Avenue Interchange Improvement Project Exhibit
- 2. Exhibit B Draft Utility Agreement between SBCTA and WVWD
- 3. Exhibit C Professional Services Agreement for Development of Construction Bid Documents for Water Main Replacement, Construction Management, and Inspection Services for I-10 Cedar Avenue Interchange
- 4. Exhibit D Task Order No. 1 with Michael Baker International

MEETING HISTORY:

10/14/20 Engineering, Operations and Planning Committee REFERRED TO BOARD

EXHIBIT A



Exhibit A Project # W19055



Packet Pg. 158

EXHIBIT B

SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY UTILITY AGREEMENT

RW 13-05 (REV 12/2016)

DISTRICT 08	COUNTY San Bernardino	ROUTE 10		POST MILE 08-SBD-10-PM 1	LE Project ID -10-PM 17.8/19.3 080000579		79
FEDERAL AID NUMBER RSTPL-6208(028)		OWNER'S PLAN NUMBER					
FEDERAL PARTICIPATIO	N On the project	YES	□ N	0	On the Utilities	VES	NO NO

UTILITY AGREEMENT NO. 24753

San Bernardino County Transportation Authority hereinafter called SBCTA, in cooperation with Caltrans and the County of San Bernardino proposes to widen Cedar Avenue Overcrossing (Bridge No. 54-0035), UPRR/Cedar Avenue Overhead (Bridge No. 54C-103), Cedar Avenue, and modify the existing entrance and exit ramps to improve the turning maneuverability and storage capacity. On Cedar Avenue, the project limits extend from Bloomington Avenue north of the freeway to approximately 400 feet south of Slover Avenue. The project limits on I-10 begin at 0.7 miles (PM 17.8) west of the Cedar Avenue centerline and end at 0.8 miles (PM 19.3) east of the Cedar Avenue centerline, including eastbound auxiliary lanes for the entrance and exit ramps. In addition, Slover Avenue will be improved approximately 656 feet east and west of the centerline of Cedar Avenue.

Name: West Valley Water District

ADDRESS: 855 W. Baseline Road, Rialto, CA 92377

hereinafter called "OWNER", owns and maintains

certain water facilities including but not limited to a 12-inch and 6 inch water line located within Cedar Ave. in the County of San Bernardino

within the limits of SBCTA's Project which requires

relocation, protection and/or adjustment in order to accommodate SBCTA's Project. The facility(ies) to be relocated, protected and/or adjusted are more particularly described in the Plan No. xxxxxxxxxxxxxxx.

to accommodate SBCTA's project.

It is hereby mutually agreed that:

I. WORK TO BE DONE

In accordance with Notice to Owner No. <u>24753</u>, date <u>2020</u>, OWNER shall relocate water facilities located within the project area. All work shall be performed substantially in accordance with OWNER's Plan No. <u>XXXXXXXXX</u> dated <u>2020</u> consisting of <u>1</u> sheet(s), a copy of which is on file at SBCTA's Office, at 1170 W 3rd St, San Bernardino, CA 92410. Deviations from the OWNER's plan described above initiated by either SBCTA or OWNER, shall be agreed upon by both parties hereto under a Revised Notice to Owner. Such Revised Notices to Owner, approved by SBCTA and agreed to/acknowledged by OWNER, will constitute an approved revision of the OWNER's plan described above and are hereby made a part hereof. No work under said deviation shall commence prior to written execution by OWNER of the Revised Notice to Owner. Changes in the scope of the work will require an amendment to this Agreement in addition to the revised Notice to Owner.

II.LIABILITY FOR WORK

The existing facilities are lawfully maintained in their present location and qualify for relocation at SBCTA's expense under the provisions of Section §703 of the Streets and Highways Code.

III. PERFORMANCE OF WORK

OWNER agrees to cause the herein described work to be performed by a contract with the lowest qualified bidder, selected pursuant to a valid competitive bidding procedure, and to furnish or cause to be furnished all necessary labor, materials, tools, and equipment required therefore, and to prosecute said work diligently to completion.

Use of personnel requiring lodging and meal "per diem" expenses will not be allowed without prior written authorization by SBCTA's representative. Requests for such authorization must be contained in OWNER's estimate of actual and necessary relocation costs. Accounting Form FA-1301 is to be completed and submitted for all non-

1 of 5

DATE

3.4.b

RW 13-05 (REV 12/2016)

UTILITY AGREEMENT NO. 24753

SBCTA personnel travel per diem. OWNER shall include an explanation why local employee or contract labor is not considered adequate for the relocation work proposed. Per Diem expenses shall not exceed the per diem expense amounts allowed under the State's Department of Personnel Administration travel expense guidelines.

Work performed by OWNER's contractor is a public work under the definition of Labor Code Section 1720(a) and is therefore subject to prevailing wage requirements.

Work performed directly by OWNER's employees falls within the exception of Labor Code Section 1720(a)(1) and does not constitute a public work under Section 1720(a)(2) and is not subject to prevailing wages. OWNER shall verify compliance with this requirement in the administration of its contracts referenced above.

IV. PAYMENT FOR WORK

SBCTA shall pay its share of the actual and necessary cost of the herein described work within 45 days after receipt of OWNER's itemized bill, signed by a responsible official of OWNER's organization and prepared on OWNER's letterhead, compiled on the basis of the actual and necessary cost and expense. The OWNER shall maintain records of the actual costs incurred and charged or allocated to the project in accordance with recognized accounting principles.

It is understood and agreed that SBCTA will not pay for any betterment or increase in capacity of OWNER's facilities in the new location and that OWNER shall give credit to SBCTA for the accrued depreciation of the replaced facilities and for the salvage value of any material or parts salvaged and retained or sold by OWNER.

Not more frequently than once a month, but at least quarterly, OWNER will prepare and submit detailed itemized progress bills for costs incurred, not to exceed OWNER's recorded costs as of the billing date less estimated credits applicable to completed work. Payment of progress bills, not to exceed the amount of this Agreement, may be made under the terms of this Agreement. Payment of progress bills which exceed the amount of this Agreement may be made after receipt and approval by SBCTA of documentation supporting the cost increase and after an Amendment to this Agreement has been executed by the parties to this agreement.

The OWNER shall submit a final bill to SBCTA within 360 days after the completion of the work described in Section I above. If SBCTA has not received a final bill within 360 days after notification of completion of OWNER's work described in Section I of this Agreement, and SBCTA has delivered to OWNER fully executed Easement Deeds, Consent to Common Use or Joint Use Agreements for OWNER's facilities (if required), SBCTA will provide written notification to OWNER of its intent to close its file within 30 days. OWNER hereby acknowledges, to the extent allowed by law, that all remaining costs will be deemed to have been abandoned. If SBCTA processes a final bill for payment more than 360 days after notification of completion of OWNER's work, payment of the late bill may be subject to allocation and/or approval by SBCTA's Board of Directors.

The final billing shall be in the form of a detailed itemized statement of the total costs charged to the project, less the credits provided for in this Agreement, and less any amounts covered by progress billings. However, SBCTA shall not pay final bills which exceed the estimated cost of this Agreement without documentation of the reason for the increase of said cost from the OWNER and approval of documentation by SBCTA. Except, if the final bill exceeds the OWNER's estimated costs solely as the result of a revised Notice to Owner as provided for in Section I, a copy of said revised Notice to Owner shall suffice as documentation. In either case, payment of the amount over the estimated cost of this Agreement may be subject to allocation and/or approval by SBCTA's Board of Directors.

In any event if the final bill exceeds 125% of the estimated cost of this Agreement, an Amended Agreement shall be executed by the parties to this Agreement prior to the payment of the OWNER'S final bill. Any and all increases in costs that are the direct result of deviations from the work described in Section I of this Agreement shall have the prior concurrence of SBCTA.

Detailed records from which the billing is compiled shall be retained by OWNER for a period of three years from the date of the final payment and will be available for audit by State and/or Federal auditors. In performing work under this Agreement, OWNER agrees to comply with the Uniform System of Accounts for Public Utilities found at 18 CFR Parts 101, 201, et al., to the extent they are applicable to OWNER doing work on the project that is the subject of this Agreement, the contract cost principles and procedures as set forth in 48 CFR, Chapter 1, Subpart E, Part 31, et seq.,

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RW 13-05 (REV 12/2016)

UTILITY AGREEMENT NO. 24753

23 CFR, Chapter 1, Part 645, and 2 CFR Part 200, et al. If a subsequent State and/or Federal audit determines payments to be unallowable, OWNER agrees to reimburse SBCTA upon receipt of SBCTA billing. If OWNER is subject to repayment due to failure by SBCTA to comply with applicable laws, regulations, and ordinances then SBCTA will ensure that OWNER is compensated for actual cost in performing work under this Agreement.

V. GENERAL CONDITIONS

All costs accrued by OWNER as a result of SBCTA's request of <u>August 15, 2019</u> to review, study and/or prepare relocation plans and estimates for the project associated with this Agreement may be billed pursuant to the terms and conditions of this Agreement.

If SBCTA's Project which precipitated this Agreement is canceled or modified so as to eliminate the necessity of work by OWNER, SBCTA will notify OWNER in writing and SBCTA reserves the right to terminate this Agreement by Amendment. The Amendment shall provide mutually acceptable terms and conditions for terminating the Agreement.

All obligations of SBCTA under the terms of this Agreement are subject to the acceptance of this Agreement of the Agreement by SBCTA's Board of Directors.

OWNER shall submit a Notice of Completion to SBCTA within 30 days of the completion of the work described herein.

Where OWNER has prior rights in areas which will be within the highway right of way and where OWNER's facilities will remain on or be relocated on STATE highway right of way, a Joint Use Agreement or Consent to Common Use Agreement shall be executed by the parties.

It is understood that said highway is a Federal aid highway and accordingly, 23 CFR, Chapter 1, Part 645 is hereby incorporated into this Agreement.

In addition, the provisions of 23 CFR 635.410, Buy America, are also incorporated into this agreement. The Buy America requirements are further specified in Moving Ahead for Progress in the 21st Century (MAP-21), section 1518; 23 CFR 635.410 requires that all manufacturing processes have occurred in the United States for steel and iron products (including the application of coatings) installed on a project receiving funding from the FHWA.

OWNER understands and acknowledges that this project is subject to the requirements of the Buy America law (23 U.S.C., section 313) and applicable regulations, including 23 CFR 635.410 and FHWA guidance. OWNER hereby certifies that in the performance of this agreement, for products where Buy America requirements apply, it shall use only such products for which it has received a certification from its supplier, or provider of construction services that procures the product certifying Buy America compliance. This does not include products for which waivers have been granted under 23 CFR 635.410 or other applicable provisions or excluded material cited in the Department's guidelines for the implementation of Buy America requirements for utility relocations issued on December 3, 2013.

If, in connection with OWNER's performance of the Work hereunder, SBCTA provides to OWNER any materials that are subject to the Buy America Rule, SBCTA acknowledges and agrees that SBCTA shall be solely responsible for satisfying any and all requirements relative to the Buy America Rule concerning the materials thus provided (including, but not limited to, ensuring and certifying that said materials comply with the requirements of the Buy America Rule).

SBCTA further acknowledges that OWNER, in complying with the Buy America Rule, is expressly relying upon the instructions and guidance (collectively, "Guidance") issued by Caltrans and its representatives concerning the Buy America Rule requirements for utility relocations within the State of California. Notwithstanding any provision herein to the contrary, OWNER shall not be deemed in breach of this Agreement for any violations of the Buy America Rule if OWNER's actions are in compliance with the Guidance.

THE ESTIMATED COST TO SBCTA FOR THE ABOVE DESCRIBED WORK IS **\$XXXXXX.XX**

Page 3 of 5

IN WITNESS WHEREOF, the above parties have executed this Agreement the day and year above written.

AGENCY: SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY		OWNER: WEST VALLEY WATER DISTRICT	
By _	Paula Beauchamp Date Director of Project Deliver	ByDate	
APPR	OVED AS TO FORM:		
By _	Eileen Monaghan Teichert General Counsel		
APPR	OVAL RECOMMENDED:		
By _	Keith Williams Date Senor Utility Coordinator Overland Pacific & Cutler, LLC		

EXHIBIT C



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AGREEMENT FOR PROFESSIONAL SERVICES

This AGREEMENT FOR PROFESSIONAL SERVICES ("Agreement") effective as of this <u>15th</u> day of <u>October</u>, 2020 ("Effective Date") is by and between West Valley Water District ("District") and <u>Michael Baker International</u> ("Consultant"). The District and Consultant may be collectively referred to as the "Parties" and individually as a "Party."

RECITALS

A. The Parties desire to enter into this Agreement for the purpose of setting forth the terms and conditions upon which Consultant shall provide certain services to District.

NOW, THEREFORE, THE PARTIES HEREBY AGREE AS FOLLOWS:

Section 1. <u>Term of Agreement</u>.

(a) Subject to subsection (b) below, the term of this Agreement will be for a period of one (1) year commencing on the Effective Date and terminating one (1) year after the Effective Date.

(b) This Agreement shall renew automatically for continuous one (1) year periods for no more than two (2) additional years, unless either Party, prior to the end of the existing one (1) year period, delivers written notice to the other Party, that the Agreement shall not be extended.

Section 2. Scope and Performance of Services.

2.1 (a) District may, from time to time, by written instructions from the general manager or assistant general manager of the District ("Authorized Representative") issue task orders ("Task Orders") to the Consultant. The Task Order shall be in such form and content as shall be set forth on Exhibit "A" attached hereto and by this reference incorporated herein. The Task Order shall set forth: (i) the scope of services to be performed by Consultant; (ii) the compensation to be paid to Consultant; and (iii) the time to complete the Task Order. The provisions of this Agreement shall apply to all such Task Orders.

(b) For each Task Order, Consultant shall confer, as requested, with District representatives to review progress of work elements, adherence to work schedule, coordination of work, scheduling of review and resolution of problems which may develop.

2.2 Consultant will furnish all of the labor, technical, administrative, professional and other personnel, all supplies and materials, equipment, printing,

vehicles, transportation, office space and facilities, and all tests, testing and analyses, calculation, and all other means whatsoever, except as otherwise expressly specified in this Agreement, necessary or proper to perform and complete the services required of Consultant under this Agreement.

- **2.3** Consultant's designated representative(s) who are authorized to act on its behalf and to make all decisions in connection with the performance of services under this Agreement are listed in Exhibit "B" attached hereto and by this reference incorporated herein ("Key Personnel").
- 2.4 Consultant represents and warrants that it has the qualifications, experience and facilities necessary to properly perform the services required under this Agreement in a thorough, competent and professional manner. Notwithstanding Section 3 below, in the event Consultant utilizes the services of subcontractors or sub-consultants. Consultant assumes sole and complete responsibility for the performance of the subcontractor or sub-consultant to the specifications provided hereunder for Consultant's work, and no adjustment will be made to Consultant's requirements under this Agreement for timely completion of services, complete performance of services, or delivery of products or deliverables in a timely fashion, and no adjustment will be made to performance deadlines, or compensation due to Consultant, due to or arising from issues Consultant may have with any subcontractor or sub-consultant. Consultant will at all times faithfully. competently and to the best of its ability, experience and talent, perform all services described in this Agreement. In meeting its obligations under this Agreement, Consultant shall employ, at a minimum, generally accepted standards and practices utilized by persons engaged in providing services similar to those required of Consultant under this Agreement.

Consultant warrants it will perform its engineering and design under the Task Order, as more particularly described in Exhibit A ("Task Order") in accordance with the current standards of care and diligence normally practiced by recognized engineering and design firms in performing services of a similar nature. Further, Consultant warrants that the engineering and design performed has been performed in accordance with the then current standards of care and diligence normally practiced by recognized engineering and design firms in performing services of a similar nature. If within one (1) year after substantial completion of the engineering and design work it is shown that there is an error in that work as a result of the Consultant's failure to meet those standards and the District has notified the Consultant in writing of any such error within that period, Consultant shall re-perform such engineering and design work within the original scope of such services, as may be necessary to remedy such error. All costs incurred by Consultant in performing such corrective services shall be the sole responsibility of the Consultant and such costs shall not be reimbursable in any way.

Section 3. Additional Services and Changes in Services

- **3.1** Consultant will not be compensated for any services rendered in connection with its performance of this Agreement that are in addition to or outside of those set forth in the Task Orders, unless such additional services are authorized in advance and in writing by District.
- **3.2** If Consultant believes that additional services are needed to complete a Task Order, Consultant will provide the Authorized Representative with written notification describing the proposed additional services, the reasons for such services, and a detailed proposal regarding cost.
- **3.3** District may order changes to a Task Order, consisting of additions, deletions, or other revisions, and the compensation to be paid Consultant will be adjusted accordingly. All such changes must be authorized in writing, and executed by Consultant and District. The cost or credit to District resulting from changes in a Task Order will be determined by the written agreement between the Parties.

Section 4. Familiarity with Services and Site.

- **4.1** By executing this Agreement, Consultant warrants that Consultant shall, prior to undertaking a Task Order:
 - (a) investigate and consider the services to be performed;
 - (b) carefully consider how and within what time frame the services should be performed;
 - (c) understand the facilities, difficulties, and restrictions attending performance of the services under a Task Order; and
 - (d) possesses all licenses required under local, state or federal law to perform the services contemplated by a Task Order, and maintain all required licenses during the performance of such Task Order.
- **4.2** If services involve work upon any site, Consultant warrants that Consultant has or will investigate the site and will be fully acquainted with the conditions there existing, before commencing its services under a Task Order. Should Consultant discover any latent or unknown conditions that may materially affect the performance of services, Consultant will immediately inform District of such fact and will not proceed except at Consultant's own risk until written instructions are received from the District.

Section 5. Compensation and Payment.

- **5.1** Subject to any limitations set forth in this Agreement, District agrees to pay Consultant the amounts shown in a Task Order.
- **5.2** Each month during the existence of a Task Order, Consultant shall furnish District with an original invoice for all services performed and expenses incurred during the preceding month in accordance with the fee schedule set forth in the Task Order. The invoice must detail charges by the following categories: labor (by subcategory), reimbursable costs, subcontractor contracts and miscellaneous expenses. The invoice must list, as applicable, the hours worked and hourly rates for each personnel category, the tasks performed, the percentage of the task completed during the billing period, the cumulative percentage completed for each task, and the total cost of the services.
- **5.3** District will independently review each invoice submitted by Consultant to determine whether the work performed and expenses incurred are in compliance with this Agreement. In the event that no charges or expenses are disputed, the invoice will be approved and paid. In the event any charges or expenses are disputed by District, the original invoice will be returned by District to Consultant for correction and resubmission.
- **5.4** Except as to any charges for work performed or expenses incurred by Consultant that are disputed by District, District will use its best efforts to cause Consultant to be paid within thirty (30) days of receipt of Consultant's invoice.
- **5.5** No payment or partial payment to Consultant shall constitute acceptance of any work completed by Consultant or waive any claims by the District for any reason whatsoever.

Section 6. <u>Required Documentation Prior to Performance</u>.

- 6.1 Consultant will not perform any services under this Agreement until:
 - (a) Consultant furnishes proof of insurance ("Insurance") as required under Exhibit "C" attached hereto and by this reference incorporated herein; and
 - (b) Consultant provides District with a Taxpayer Identification Number.
- **6.2** The District will have no obligation to pay for any services rendered by Consultant in advance of receiving written authorization to proceed for each Task Order, and Consultant acknowledges that any such services are at Consultant's own risk.

Section 7. <u>Project Documents</u>.

- **7.1** All original maps, models, designs, drawings, photographs, studies, surveys, reports, data, notes, computer programs, files and other documents (collectively, "Project Documents") prepared, developed or discovered by Consultant in the course of providing services under this Agreement will become the sole property of District and may be used, reused or otherwise disposed of by District without the permission of Consultant. Consultant will take such steps as are necessary to perfect or protect the ownership interest of District in such Project Documents. Upon completion, expiration or termination of this Agreement, Consultant shall turn over to District all such original Project Documents in its possession; provided, however, that Consultant may retain copies of Project Documents.
- **7.2** Except as necessary for the performance of services under this Agreement, no Project Documents prepared under this Agreement, will be released by Consultant to any other person or entity without District's prior written approval. All press releases, including graphic display information to be published, must be approved and distributed solely by District, unless otherwise agreed to in writing by District.

Section 8. <u>Consultant's Books and Records</u>.

- **8.1** Consultant shall maintain any and all documents and records demonstrating or relating to Consultant's performance of services under this Agreement. Consultant shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, or other documents or records evidencing or relating to work, services, expenditures and disbursements charged to District under this Agreement. Any and all such documents or records must be maintained in accordance with generally accepted accounting principles and must be sufficiently complete and detailed so as to permit an accurate evaluation of the services provided by Consultant under this Agreement. Any and all such documents or records must be maintained for three (3) years following the final payment for each Task Order.
- **8.2** Any and all records or documents required to be maintained by this section must be made available for inspection, audit and copying, at any time during regular business hours, upon written request by District or its designated representatives. Copies of such documents or records must be provided directly to District for inspection, audit and copying when it is practical to do so; otherwise, unless an alternative is mutually agreed upon, such documents and records must be made available at Consultant's address indicated for receipt of notices in this Agreement.

8.3 Where District has reason to believe that any of the documents or records required to be maintained by this section may be lost or discarded due to dissolution or termination of Consultant's business, District may, by written request, require that custody of such documents or records be given to a person or entity mutually agreed upon and that such documents and records thereafter be maintained by such person or entity at Consultant's expense. Access to such documents and records shall be granted to District, as well as to its successors-in-interest and authorized representatives.

Section 9. <u>Status of Consultant</u>.

- **9.1** Consultant is and will at all times remain a wholly independent contractor and not an officer or employee of District. Consultant has no authority to bind District in any manner, or to incur any obligation, debt or liability of any kind on behalf of or against District, whether by contract or otherwise, unless such authority is expressly conferred under this Agreement or is otherwise expressly conferred in writing by District.
- **9.2** The personnel performing the services under this Agreement on behalf of Consultant will at all times be under Consultant's exclusive direction and control. Neither District, nor any elected or appointed boards, officers, officials, employees or agents of District, will have control over the conduct of Consultant or any of Consultant's officers, subcontractors or subconsultants, employees or agents, except as provided in this Agreement. Consultant warrants that it will not at any time or in any manner represent that Consultant or any of Consultant's officers, employees or agents are in any manner officials, officers, employees or agents of District.
- **9.3** Neither Consultant, nor any of Consultant's officers, employees or agents, will obtain any rights to retirement, health care or any other benefits which may otherwise accrue to District's employees. Consultant expressly waives any claim to any such rights or benefits.

Section 10. Compliance with Applicable Laws.

Consultant shall keep itself informed of and comply with all applicable federal, state and local laws, statutes, codes, ordinances, regulations and rules in effect during the term of this Agreement.

Section 11. Conflicts of Interest.

Consultant covenants that neither Consultant, nor any officer, principal nor employee of its firm, has or will acquire any interest, directly or indirectly, that would conflict in any manner with the interests of District or that would in any way hinder Consultant's performance of services under this Agreement. Consultant further covenants that neither Consultant, nor any officer, principal or employee of its firm will make, participate in the making, or in any way attempt to use the position of Consultant to influence any decision of the District in which Consultant knows or has reason to know that Consultant, or any officer, principal or employee of Consultant has a financial interest as defined in Government Code section 87103.

Section 12. Confidential Information; Release of Information.

- **12.1** All information gained or work product produced by Consultant in performance of this Agreement will be considered confidential to the full extent permitted by law, unless such information is in the public domain or already known to Consultant. Consultant shall not release or disclose any such information or work product to persons or entities other than District without prior written authorization from an Authorized Representative, except as may be required by law.
- **12.2** Consultant, its officers, employees, or agents, shall not, without prior written authorization from an Authorized Representative or unless requested by the District counsel, voluntarily provide declarations, letters of support, testimony at depositions, response to interrogatories or other information concerning the work performed under this Agreement. Response to a subpoena or court order will not be considered "voluntary" provided Consultant gives District notice of such court order or subpoena.
- **12.3** If Consultant, or any officer, employee, or agent of Consultant, provides any information or work product (including Project Documents) in violation of this Agreement, then District shall have the right to reimbursement and indemnity from Consultant for any damages, costs and fees, including attorneys' fees related to any unauthorized disclosure by consultant or, caused by or incurred as a result of Consultant's conduct.
- **12.4** Consultant shall promptly notify District should, Consultant, its officers, employees, or agents be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions or other discovery request, court order or subpoena from any party regarding this Agreement and the services performed under this Agreement. District retains the right, but has no obligation, to represent Consultant or be present at any deposition, hearing or similar proceeding. Consultant agrees to cooperate fully with District and to provide District with the opportunity to review any response to discovery requests provided by

Consultant. However, this right to review any such response does not imply or mean the right by District to control, direct, or rewrite such response.

Section 13. Indemnification.

Consultant covenants and agrees that, during the term of this Agreement, any injury suffered as a result of Consultant's services shall be the sole responsibility of Consultant and its successors and assigns and District shall not be liable to Consultant, or any other person or persons whatsoever for any such injury, loss or damage to persons or property unless caused by the negligence or intentional acts of District or its Representatives (as solely defined below). Consultant shall defend, indemnify and hold District, its officers, directors and Representatives ("District Indemnitees") harmless from and against any and all claims, costs, liabilities, debts, demands, suits, actions, causes of action, obligations, proceedings, damages, judgments, liens and expenses of whatever nature, including attorneys' fees and disbursements (collectively, "Claims") which may be made against the District Indemnitees arising out of or in connection with (a) the retention by District of Consultant's services; (b) the performance of or failure to perform, the work covered by this Agreement which is caused or occasioned by any act, action, neglect on the part of Consultant, or its Representatives, in the performance of this Agreement and the work to be done under this Agreement; (c) the death and/or injury to any person or damage to any property (real or personal) and/or economic loss which may be caused or is claimed to have been caused, by the negligence, act or omission of Consultant or its Representatives or its or their property; (d) any violation or alleged violation by Consultant of any law or regulation now or hereafter enacted; and (e) any breach by Consultant of its obligations under this Agreement. The foregoing indemnity shall not apply to the extent any such Claims are ultimately established by a court of competent jurisdiction to have been caused by the negligence or willful misconduct of the District Indemnitees or any of them. District shall make all decisions with respect to its representation in any legal proceeding concerning this section. If Consultant fails to do so, District shall have the right, but not the obligation, to defend the same and charge all of the direct or incidental Claims of such defense, including attorneys' fees and costs, to Consultant and to recover the same from Consultant. The term "Representatives" shall mean employees, representatives, agents, contractors, subcontractors or any other persons directly or indirectly employed by any one of the foregoing or reasonably under the control of any of the foregoing or for whose acts any of the foregoing may be liable.

Section 14. Insurance.

Consultant agrees to obtain and maintain in full force and effect during the term of this Agreement the Insurance coverages listed in Exhibit "C." All Insurance policies

shall be subject to approval by District as to form and content. These requirements are subject to amendment or waiver if so approved in writing by an Authorized Representative.

Section 15. Assignment.

- **15.1** The expertise and experience of Consultant are material considerations for this Agreement. District has an interest in the qualifications of and capability of the persons and entities that will fulfill the duties and obligations imposed upon Consultant under this Agreement. Consultant may not assign or transfer this Agreement or any portion of this Agreement or the performance of any of Consultant's duties or obligations under this Agreement without the prior written consent of District. The District can withhold its approval/consent in its sole and absolute discretion. Any attempted assignment will be null and void, and will constitute a material breach of this Agreement entitling District to any and all remedies at law or in equity, including summary termination of this Agreement.
- **15.2** Consultant must obtain District's prior written approval before utilizing any subcontractors to perform any services under this Agreement, which approval may be withheld in District's sole and absolute discretion. This written approval must include the identity of the subcontractor and the terms of compensation. Approval by District does not imply any agreement to or endorsement by the District as to the competency or capability of any proposed subcontractor or sub-consultant, and District reserves any and all rights against both Consultant and such subcontractor or sub-consultant , for any failure to perform or other breach of any of the provisions of this Agreement, or the standards of performance defined herein, and no waiver is intended or to be implied by District's approval of any subcontractor or sub-consultant.

Section 16. Termination of Agreement.

- **16.1** District may terminate this Agreement, with or without cause, at any time by written notice of termination to Consultant. In the event such notice is given, Consultant shall cease immediately all work in progress.
- **16.2** Upon termination of this Agreement, all property belonging exclusively to District which is in Consultant's possession must be returned to District. Consultant shall promptly deliver to District a final invoice for all outstanding services performed and expenses incurred by Consultant as of the date of termination. Compensation for work in progress not based on an hourly rate will be prorated based on the percentage of work completed as of the date of termination.

16.3 Consultant acknowledges District's right to terminate this Agreement as provided in this section, and hereby waives any and all claims for damages that might otherwise arise from District's termination of this Agreement.

Section 17. Notices.

- **17.1** All written notices required or permitted to be given under this Agreement will be deemed made when received by the other Party at its respective address as follows:
- To District: West Valley Water District 855 West Base Line Road P. O. Box 920 Rialto, CA 92377 Attention: Clarence C. Mansell, Jr. General Manager (Tel.) 909-875-1804 (Fax) 909-875-1849
- To Consultant: Michael Baker International 40810 County Center Drive, Ste. 200 Temecula, CA 92591 Attention: Momcilo Savovic, P.E., Principal

(Tel.) 951-676-8042 (Fax) 951-676-7240

** Please send all invoices by:

Email: apinvoices@wvwd.org

or

Mail: West Valley Water District Accounts Payable P.O. Box 190 Rialto, CA 92377

17.2 Notice will be deemed effective on the date personally delivered or transmitted by facsimile. If the notice is mailed, notice will be deemed given three (3) days after deposit of the same in the custody of the United States

Postal Service, postage prepaid, for first class delivery, or upon delivery if using a major courier service with tracking capabilities.

17.3 Any Party may change its notice information by giving notice to the other Party in compliance with this section.

Section 18. General Provisions.

- **18.1** Authority to Execute. Each Party represents and warrants that all necessary action has been taken by such Party to authorize the undersigned to execute this Agreement and to bind it to the performance of its obligations hereunder.
- **18.2 Binding Effect.** Subject to Section 15, this Agreement is binding upon the heirs, executors, administrators, successors and assigns of the Parties, including any subcontractors or sub-consultants of Consultant.
- **18.3 Entire Agreement.** This Agreement, including the attached Exhibits "A" through "C," is the entire, complete, final and exclusive expression of the Parties with respect to the matters addressed in this Agreement and supersedes all other agreements or understandings, whether oral or written, between Consultant and District prior to the execution of this Agreement.
- **18.4 Modification of Agreement.** No amendment to or modification of this Agreement will be valid unless made in writing and approved by Consultant and approved in writing by the Board of Directors of the District, or in writing by the General Manager, if such power has been delegated to General Manager. The Parties agree that this requirement for written modifications cannot be waived and that any attempted waiver will be void.
- **18.5** Facsimile Signatures. Amendments to this Agreement will be considered executed when the signature of a Party is delivered by facsimile transmission. Such facsimile signature will have the same effect as an original signature.
- **18.6** Waiver. Waiver by any Party to this Agreement of any term, condition, or covenant of this Agreement will not constitute a waiver of any other term, condition, or covenant. Waiver by any Party of any breach of the provisions of this Agreement will not constitute a waiver of any other provision, or a waiver of any subsequent breach or violation of any provision of this Agreement. Acceptance by District of any services by Consultant will not constitute a waiver of any of the provisions of this Agreement.
- **18.7 Interpretation.** This Agreement will be interpreted, construed and governed according to the laws of the State of California. Each Party has had the opportunity to review this Agreement with legal counsel. The Agreement will be construed simply, as a whole, and in accordance with its

fair meaning, and without resort to rules regarding draftsmanship. It will not be interpreted strictly for or against either Party.

- **18.8 Severability.** If any provision of this Agreement shall be ruled invalid, illegal or unenforceable, the Parties shall: (a) promptly negotiate a substitute for the provisions which shall to the greatest extent legally permissible, effect the intent of the Parties in the invalid, illegal or unenforceable provision, and (b) negotiate such changes in, substitutions for or additions to the remaining provisions of this Agreement as may be necessary in addition to and in conjunction with subsection (a) above to give effect to the intent of the Parties without the invalid, illegal or unenforceable provision. To the extent the Parties are unable to negotiate such changes, substitutions or additions as set forth in the preceding sentence, and the intent of the Parties with respect to the essential terms of the Agreement may be carried out without the invalid, illegal or unenforceable provisions, the balance of this Agreement shall not be affected, and this Agreement shall be construed and enforced as if the invalid, illegal or unenforceable provisions did not exist.
- **18.9 Venue.** The Parties agree any action or proceeding to enforce or relating to this Agreement shall be brought exclusively in the federal court located in Riverside County, California or state court located in San Bernardino County, California and the Parties hereto consent to the exercise of personal jurisdiction over them by such courts for purposes of any such action or proceeding.
- **18.10 Disputes.** If any disputes should arise between the Parties concerning the work to be done under this Agreement, the payments to be made, or the manner of accomplishment of the work, Consultant shall nevertheless proceed to perform the work as directed by District pending settlement of the dispute.
- **18.11 Cooperation.** Consultant shall cooperate in the performance of work with District and all other agents.
- **18.12 Time of Essence.** Time shall be of the essence as to all dates and times of performance contained in this Agreement.
- **18.13 Counterparts.** This Agreement may be signed and delivered in any number of counter parts, each of which, when signed and delivered, shall be an original, but all of which shall together constitute one and the same Agreement.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed effective as of the day and year first above written.

DISTRICT:

WEST VALLEY WATER DISTRICT, a public agency of the State of California

By _____ Clarence C. Mansell, Jr., General Manager

By_____ Peggy Asche, Board Secretary

APPROVED AS TO FORM:

TAFOYA LAW GROUP, APC

By _____ Robert Tafoya

CONSULTANT:

Michael Baker International

Ву_____

Name_____

lts_____

EXHIBIT A

TASK ORDER

3
TASK ORDER NO. <u>1</u>

This Task Order ("Task Order") is executed this _____ day of _____, 2020 by and between West Valley Water District, a public agency of the State of California ("District") and ______ ("Consultant").

RECITALS

- A. On or about ______, 2020 District and Consultant executed that certain Agreement for Professional Services ("Agreement").
- B. The Agreement provides that the District will issue Task Orders from time to time, for the provision of certain services by Consultant.
- C. Pursuant to the Agreement, District and Consultant desire to enter into this Task Order for the purpose of setting forth the terms and conditions upon which Consultant shall render certain services to the District.

NOW, THEREFORE, THE PARTIES HERETO HEREBY AGREE AS FOLLOWS:

1. Consultant agrees to perform the services set forth on Exhibit "1" attached hereto and by this reference incorporated herein.

2. Subject to any limitations in the Agreement, District shall pay to Consultant the amounts specified in Exhibit "2" attached hereto and by this reference incorporated herein. The total compensation, including reimbursement for actual expenses, may not exceed the amount set forth in Exhibit "2," unless additional compensation is approved in writing by the District.

3. Consultant shall perform the services described in Exhibit "1" in accordance with the schedule set forth in Exhibit "3" attached hereto and by this reference incorporated herein. Consultant shall commence work immediately upon receipt of a notice to proceed from the District. District will have no obligation to pay for any services rendered by Consultant in advance of receipt of the notice to proceed, and Consultant acknowledges that any such services are at Consultant's own risk.

4. The provisions of the Agreement shall apply to this Task Order. As such, the terms and conditions of the Agreement are hereby incorporated herein by this reference.

[SIGNATURES APPEAR ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the parties have caused this Task Order to be executed effective as of the day and year first above written.

DISTRICT:

WEST VALLEY WATER DISTRICT, a public agency of the State of California

Clarence C. Mansell Jr., General Manager

Peggy Asche, Board Secretary

CONSULTANT:

Vendor Name Here

By___

Name

6

By_____ Name

lts _____

lts _____

EXHIBIT "1"

то

TASK ORDER NO. 1

SCOPE OF SERVICES

EXHIBIT "2"

то

TASK ORDER NO. 1

COMPENSATION

EXHIBIT "3"

то

TASK ORDER NO. <u>1</u>

SCHEDULE

EXHIBIT B

KEY PERSONNEL

KEY PERSONNEL

1. Consultant's designated representative(s) who are authorized to act on its behalf and to make all decisions in connection with the performance of services under this Agreement are:

Momcilo Savovic, P.E., Principal In Charge Miles Costanza, P.E., Project Manager John Nagle, P.E., QA/QC

2. Consultant shall exercise reasonable efforts to keep such key personnel employed in connection with the project as long as reasonably necessary to fulfill obligations under this Agreement. Consultant shall provide appropriate notice to the District prior to key personnel removal or replacement. Consultant shall submit the resume of the personnel nominated to fill the positions listed in the Request for Proposal ("RFP") to the District for review. Key personnel, included in the RFP, are the following:

Momcilo Savovic, P.E., Principal In Charge Miles Costanza, P.E., Project Manager John Nagle, P.E., QA/QC Kevin Saleh, P.E., Technical Review Troy Edwards, P.E., Project Engineer Pat Hanify, P.E., Constructability Review and Construction Management Aaron Singer, E.I.T., Construction Inspector/Field Engineering John Martin., Construction Inspector Robert "Butch" Smarzich, Construction Inspector Sal Sheikh, P.E., Structural Design John Duquette, P.L.S., Survey Construction Staking

EXHIBIT C

INSURANCE

INSURANCE

A. **General Requirements**. Before commencing the performance of services under this Agreement, and at all other times this Agreement is effective, Consultant must procure and maintain the following types of insurance with coverage limits complying, at a minimum, with the limits set forth below:

<u>Type of Insurance</u>	Limits (combined single)
Commercial General Liability:	\$1,000,000
Business Automobile Liability	\$1,000,000
Professional Liability	\$1,000,000
Workers Compensation	Statutory Requirement

- B. **Commercial General Liability Insurance**. The amount of insurance set forth above must be a combined single limit per occurrence for bodily injury, personal injury, and property damage for the policy coverage. The insurance must be on an "occurrence" not a "claims made" basis.
- C. **Business Automobile Insurance**. Automobile coverage must be written on forms subject to the written approval of District.
- D. **Professional Liability Insurance**. This coverage must be on an "occurrence" basis, including coverage for contractual liability. The Professional Liability Insurance required by this Agreement must be endorsed to be applicable to claims based upon, arising out of or related to services performed under this Agreement.
- E. **Workers Compensation**. Consultant must have a State of California approved policy form providing the statutory benefits required by law with employer's liability limits of no less than \$1,000,000 per accident for all covered losses, or Consultant must provide evidence of an approved self-insurance program.
- F. **Additional Insureds**. Each Commercial General Liability Insurance policy and Business Auto Insurance policy must provide that the <u>District</u>, its officials, officers, <u>employees</u>, agents and volunteers are "additional insureds" under the terms of the policy, and must provide that an act or omission of one the insureds will not reduce or avoid coverage to the other insureds.
- G. **Deductibles and Self-Insured Retention**. Any deductibles or self-insured retentions applicable to the insurance policies required under this Agreement must be declared to and approved by District. In no event may any required insurance policy have a deductible, self-insured retention or other similar policy provision in excess of \$50,000 without prior written approval by District in its sole discretion. At the option of District, either the insurer will reduce or eliminate such deductibles or self-insured retentions with respect to the District's additional insureds or Consultant will procure a bond guaranteeing payment of any losses, damages, expenses, costs or settlements up to the amount of such deductibles or self-insured retentions.

- H. **Primary Insurance**. Each of the insurance policies maintained by Consultant under this Agreement must state that such insurance will be deemed "primary" so that any insurance that may be carried by District will be deemed excess to that of Consultant. This endorsement must be reflected on forms as determined by District.
- I. Certificates of Insurance and Endorsements. Prior to commencing any services under this Agreement, Consultant must file with the District certificates of insurance and endorsements evidencing the existence of all insurance required by this Agreement, along with such other evidence of insurance or copies of policies as may reasonably be required by District. These certificates of insurance and endorsements must be in a form approved by the Legal Counsel. Consultant must maintain current certificates and endorsements on file with District during the term of this Agreement reflecting the existence of all required insurance. Each of the certificates must expressly provide that no material change in the policy, or termination thereof, will be effective except upon 30 days' prior written notice to District by certified mail, return receipt requested. The delivery to District of any certificates of insurance or endorsements that do not comply with the requirements of this Agreement will not waive the District's right to require compliance.
- J. **Insurance Rating**. All insurance required to be maintained by Consultant under this Agreement must be issued by companies licensed by or admitted to conduct insurance business in the State of California by the California Department of Insurance and must have a rating of A or better and Class VII or better by the latest edition of A.M. Best's Key Rating Guide.
- K. **Aggregate Limits**. The aggregate limits for each insurance policy required under this Agreement must apply separately and solely to the services performed under this Agreement. If the required policies do not have an endorsement providing that the aggregate limit applies separately to the services being performed, or if defense costs are included in the aggregate limit, then the required aggregate limits must be increased to an amount satisfactory to District.
- L. **Waiver of Subrogation Rights**. Consultant and each insurer providing any insurance required by this Agreement must waive all rights of subrogation against District, its officials, officers, employees, agents and volunteers, and each insurer must issue a certificate to the District evidencing this waiver of subrogation rights.
- M. **Failure to Maintain Required Insurance**. If Consultant, for any reason, fails to obtain and maintain the insurance required by this Agreement, District may obtain such coverage at Consultant's expense and deduct the cost of such insurance from payments due to Consultant under this Agreement or may terminate the Agreement.
- N. **Effect of Coverage**. The existence of the required insurance coverage under this Agreement shall not be deemed to satisfy or limit Consultant's indemnity obligations under this Agreement. Consultant acknowledges that the insurance coverage and policy limits set forth in this Agreement constitute the minimum coverage and policy limits required. Any insurance proceeds available to District

in excess of the limits and coverage required by this Agreement, and which is applicable to a given loss, must be made available to District to compensate it for such losses.

EXHIBIT D

TASK ORDER NO. 1

<u>Development of Construction Bid Documents for Water Main Replacement,</u> <u>Construction Management, and Inspection Services</u>

This Task Order ("Task Order") is executed this <u>15th</u> day of <u>October</u>, 2020 by and between West Valley Water District, a public agency of the State of California ("District") and <u>Michael Baker International</u> ("Consultant").

RECITALS

- A. On or about <u>October 15th</u>, 2020 District and Consultant executed that certain Agreement for Professional Services ("Agreement").
- B. The Agreement provides that the District will issue Task Orders from time to time, for the provision of certain services by Consultant.
- C. Pursuant to the Agreement, District and Consultant desire to enter into this Task Order for the purpose of setting forth the terms and conditions upon which Consultant shall render certain services to the District.

NOW, THEREFORE, THE PARTIES HERETO HEREBY AGREE AS FOLLOWS:

1. Consultant agrees to perform the services set forth on Exhibit "1" attached hereto and by this reference incorporated herein.

2. Subject to any limitations in the Agreement, District shall pay to Consultant the amounts specified in Exhibit "2" attached hereto and by this reference incorporated herein. The total compensation, including reimbursement for actual expenses, may not exceed the amount set forth in Exhibit "2," unless additional compensation is approved in writing by the District.

3. Consultant shall perform the services described in Exhibit "1" in accordance with the schedule set forth in Exhibit "3" attached hereto and by this reference incorporated herein. Consultant shall commence work immediately upon receipt of a notice to proceed from the District. District will have no obligation to pay for any services rendered by Consultant in advance of receipt of the notice to proceed, and Consultant acknowledges that any such services are at Consultant's own risk.

4. The provisions of the Agreement shall apply to this Task Order. As such, the terms and conditions of the Agreement are hereby incorporated herein by this reference.

[SIGNATURES APPEAR ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the parties have caused this Task Order to be executed effective as of the day and year first above written.

DISTRICT:

WEST VALLEY WATER DISTRICT, a public agency of the State of California

Clarence C. Mansell Jr., General Manager

Peggy Asche, Board Secretary

CONSULTANT:

MICHAEL BAKER INTERNATIONAL

Ву		
Name		

lts_____

Ву			
Name_			
lts			

EXHIBIT "1"

то

TASK ORDER NO. 1

SCOPE OF SERVICES

Scope:

1. Engineering Design Services for the Development of Construction Bid Documents for Water Main Replacement, Construction Management, and Inspection Services per the attached proposal dated October 1, 2020.



DEVELOPMENT OF CONSTRUCTION BID DOCUMENTS FOR WATER MAIN REPLACEMENT, CONSTRUCTION MANAGEMENT, AND INSPECTION SERVICES

PROJECT NO. W 19055 I-10 CEDAR AVENUE INTERCHANGE IMPROVEMENT PROJECT

West Valley

West Valley Water



5.... 223

SUBMITTED TO: WEST VALLEY WATER DISTRICT SUBMITTED BY:

Michael Baker

DNATIONAI Packet Pg. 196

1. COVER LETTER





October 1, 2020

YEARS Making a Difference

3.4.d

Mr. Al Robles, Purchasing Supervisor West Valley Water District 855 W Baseline Rd. Rialto, CA 92376

Re: Request for Proposal for Development of Construction Bid Documents for Water Main Replacement, Construction Management, and Inspection Services Project No. W19055 I-10 Cedar Avenue Interchange Improvement Project

Dear Mr. Robles:

Michael Baker International, Inc. (Michael Baker) is pleased to have this opportunity to present our proposal to the West Valley Water District (WVWD) to provide engineering services for the I-10 Cedar Avenue Interchange Improvement Project. The District needs a consulting firm that understands the key project issues and has the expertise to guide the project to completion within budget and on time. We have assembled an exceptionally qualified team that is ready to deliver cost-effective and quality design package and able to meet the District's schedule. Michael Baker understands and supports the District objectives and offers the following benefits:

- A Team with Expertise in Similar Projects: The Michael Baker team is comprised of individuals who provide diverse expertise in each of the disciplines required for successful completion of the project. These include a Project Manager and Project Engineer who have recently executed projects involving water line relocations across Caltrans bridges, have successfully executed agreements with UPRR for clients, and a structural engineer with deep experience working with Caltrans bridge designs.
- An Experienced Project Manager: Miles Costanza, PE, serve as project manager for this project based on his combination of technical expertise and project management track record. Miles brings over 11 years of experience in water, wastewater, and water reuse, planning, design, and construction management in both the private and public sectors.
- The Right Staff Available to Meet Your Schedule: We understand the critical need for an expedited schedule with this project, and we have the available staff with the right expertise to begin work immediately and meet your schedule. In addition to our Pipeline Design staff, our team includes professionals from our in-house structural engineering and construction management departments. The result is a multi-discipline team with the right project experience who also have experience working on projects together. We believe team synergy is critical to the success of fast-track projects such as yours.
- In-House Services: All design, construction management, and inspection work will be performed in-house by Michael Baker team members, ensuring fast communication and easy of coordination, ensuring a fast and efficient design for WVWD.

Once again, we appreciate the opportunity to submit propose our services and look forward to discussing our scope of work with you in detail. The proposal will be valid is ninety (90) days from the date of submittal and we acknowledge addendum No. 1 dated September 21, 2020. We are committed to delivering your project within the scheduled timeframe. If you should have any questions, please do not hesitate to contact Miles Costanza or by email at <u>miles.costanza@mbakerintl.com</u>. Respectfully submitted,

MICHAEL BAKER INTERNATIONAL

Miles Costanza, PE

Project Manager

Momciló, Savovic, PE Principal In Charge

2. BACKGROUND ON FIRM



2. FIRM BACKGROUND

Place Holder for Tab

2. FIRM BACKGROUND

Michael Baker is composed of a wide bench of resources and is ready and available to provide the District with an industry-leading design for this project.

Michael Baker International, Inc. (Michael Baker), a leading provider of engineering and consulting services, has been partnering with communities since 1940 to solve their most complex infrastructure challenges with a legacy of expertise, experience, innovation, and integrity.

For over 75 years, **Michael Baker** has been delivering innovative solutions for every component of the water cycle utilizing our inhouse multi-discipline approach. Supported by more than 3,400 employees in nearly 100 offices in the U.S., we work diligently to solve the water and wastewater challenges of our federal, state, regional, municipal, and private sector clients. From master planning and concept development, through design, permit acquisition, and construction management, we deliver practical and cost-effective solutions for the planning, financing, design, and construction management of water and wastewater conveyance, treatment, storage, and pumping facilities.

Michael Baker's team of professionals offers expertise in environmental services, land use planning, urban design, public outreach, landscape architecture, GIS, transportation and traffic planning and engineering; storm water and water quality engineering; civil, structural, mechanical, and electrical engineering; survey and mapping; water and wastewater engineering; and construction management services.

Michael Baker has improved how we manage and execute design projects. The project manager and staff go out walk the project sites to look for obstructions, construction challenges, and to get a feel for the neighborhood. This extra step doesn't add to the project schedule and improves the end design. On these visits, we've located irrigation structures and other improvements not on utility locate requests or not apparent in survey data. When we find any challenges, or sensitive areas, we reach out to stakeholders to keep them informed and involved when appropriate. *Many* of our designs that went to construction were constructed successfully with very minimal to almost no change orders.

In addition to design, we focus on Construction Management and Inspection services to support a project from inception to construction. Our updated approach stresses focus on what's best for the project, and the client benefits while minimizing cost by looking at the project life cycle from capital cost to operation and maintenance cost, while taking into consideration the available project budget.

For potholing support, we've teamed with Boudreau Pipeline Corporation to provide supplemental pothole locations is needed. Boudreau has extensive experience throughout the Inland Empire and is able to bring cost-effective support to the project.

Michael Baker staff also routinely provides bidding phase support preparing advertisement package, contracts, pre-bid conference, addenda, and bid reviews. We have successfully

California Offices:

3.4.d

Camarillo, California Carlsbad, California Long Beach, California Los Angeles, California Oakland, California Ontario, California Palm Desert, California Rancho Cordova, California Santo Ana, California Temecula, California Walnut Creek, California

Water Resources Services

- Water, Wastewater and Recycled
- Water Master Planning
- Transmission and Distribution
- Pipelines
- Pumping Stations
- Water Storage Facilities
- Treatment Plants
- Seawater and Brackish
- Groundwater Water Desalination
- SCADA/I&C
- Wells
- Water System Appraisal
- Corrosion Engineering
- Dams and Levees

Support Services:

- General Civil Engineering
- Structural Engineering
- Bridge Design
- Transportation Engineering
- Traffic Control Engineering
- Electrical Engineering
- Stormwater Management
- Water Quality
- Watershed Management
- Surveying and Mapping
- Regulatory Permitting
- CEQA/NEPA Compliance
- Geographic Information Systems
- Construction Management and
- Inspection
- Visual Analysis

coordinated Per-Construction Conferences, Public Outreach, Weekly meetings, RFIs, Inspection Schedule, Day to Day Operations, As-Builts, Pay Apps and Project Closeouts throughout the Inland Empire and Southern California.

Pipeline Design Expertise

Michael Baker

INTERNATIONAL

Michael Baker has worked on behalf of local agencies in the planning and design of water resources facilities, including design of over 1,000 pipelines as part of highway, roadway, and bridge projects or as independent projects. We have provided pipeline design to the U.S. Army Corps of Engineers, State of California, water districts, and cities throughout Southern California. The firm provides a full range of professional services from analysis, to concept, through planning, design, and construction support and management services.



Related services include hydraulic analysis, surge analysis, condition assessment, pipeline rehabilitation, cathodic protection services, alignment studies, and pipe material selection. Our Water/Wastewater Engineering Department consists of highly experienced professionals dedicated to serving the needs of our clients with innovative and creative concepts, while being mindful of practical and cost-effective solutions.

Our technical expertise and commitment to excellent project delivery has won us national recognition by Engineering News Record (ENR). In California, we are currently ranked 5th in Water Supply and 6th in Bridge Design, a category in which we consistently rank in the top 2% of firms nationwide. Our pipeline engineers and bridge engineers are located together in the same office and have worked together on numerous similar projects.

Bridge Design Expertise

A long-term commitment to excellence in bridge design, construction, and preservation is a major part of Michael Baker's dedication to transportation infrastructure. Michael Baker's bridge design expertise is known nationally. The firm has established a commitment of responding to the toughest challenges with innovative and sustainable bridge designs. Michael Baker's bridges range from small box culverts and retaining walls to major, complex river crossings, including trusses, arches, box girders, and cable-stayed bridges. For seven decades, the firm has demonstrated leadership by promoting advancements in bridge design and construction, such as the use of high-performance materials and Accelerated Bridge Construction (ABC) techniques. Our ABC expertise has included bridge launching, bridge slide-ins, use of precast and prefabricated elements, and several of the first and the largest Self-Propelled Modular Transport (SPMT) bridge moves in the U.S. Our technical expertise and commitment to excellent project delivery has won us national recognition by Engineering News Record (ENR). In California, we are currently ranked 5th in Water Supply and 6th in Bridge Design, a category in which we consistently rank in the top 2% of firms nationwide. Our pipeline engineers and bridge engineers are located together in the same office and have worked together on numerous similar projects.

Experience of The Key Personnel

Our staffing approach is about your successes, reaching your goals, and achieving your mission, and that approach begins with a true understanding of the District's needs as it relates to this contract. Our team of infrastructure engineering, surveying, and maintenance experts have the District's policy and performance expertise, understand the importance of this contract and its wide reaching implications, including its impact to the community and the safety of the public, and the speed at which

for deliverables. On the following pages are an Organization Chart and a brief summary of each proposed team member. Resumes of each

quality services must be delivered.

team member are included in the Appendix to this proposal.

Team Organization

Michael Baker has the in-house capabilities required to meet the District's project needs. The selected Michael Baker team is flexible and will provide turn-key, innovative, and cost reducing solutions for District. The Michael Baker team will provide a high level of performance to the District, completing the required services within the project schedule

A Client-Focused Approach Based on What's Best for WVWD. Our team of dedicated local professionals will always put the needs of the District and the public first and we will provide the highest quality standard in each task.















Statement of Experience and Qualifications of Project Assigned Personnel

Key Personnel



Momcilo Savovic, PE, Principal In Charge

Mr. Savovic has more than 33 years of national and international experience in consulting engineering with experience including infrastructure design, evaluation and assessment; project management; organizational assessments/facilitation services; planning; and construction management. Mr. Savovic provided process/mechanical assessments for a variety of water treatment and conveyance systems, including water networks, water mains, potable, and recycled water pump stations, wells, reservoirs, and treatment plants. His responsibilities have included field investigations; condition assessments; preparation of plans, specifications, and cost estimates; hydraulic analyses; equipment selection; and onsite construction management services.

Mr. Savovic is a Registered Professional Engineer in the states of California and Washington, as well as Alberta, Canada. He is also an AAEE (American Academy of Environmental Engineers) board-certified environmental engineer and CMAA (Construction Management Association of America) Certified Construction Manager (CCM).



Miles Costanza, PE, LEED AP, Project Manager

Mr. Costanza has 14 years of professional engineering experience in water and wastewater treatment, pump stations, storage tanks, piping, and condition assessment. He recently completed designs for water line relocations as part of Caltrans bridge replacements for bridges crossing the California State Route 60 that included 8", 12" 16" and 18" water lines. He has also completed multiple applications and executed agreements for waterline crossings with UPRR. He has a proven record of experience in producing detailed designs, plans, specifications, and in construction management in the water and wastewater industry. He has led teams consisting of contractors, structural engineers, geotechnical engineers, electrical engineers, and corrosion engineers.



Mr. Nagle has practiced in the field of civil engineering for over 30 years and has extensive experience in planning, designing, and providing construction support services for major water and wastewater facilities. He has been responsible for the preparation of numerous construction plans, specifications, and cost estimates for water and sewer pipelines, water pumping stations, wastewater lift stations, wells, and reservoirs. He has also prepared master plans for both municipal and private-sector clients for potable water, sanitary sewer, and recycled water systems.



Mr. Saleh has over 24 years of experience as a civil engineer. His professional experience includes planning, design, construction management, and construction support services for a variety of public works projects, with specific areas of practice in water and wastewater. His relevant experience includes water distribution and treatment facilities, pumping facilities, treatment plant projects/processes, reservoirs, pressure reducing and surge facilities.





Michael Baker

INTERNATIONAL

3.4.d



DEVELOPMENT OF CONSTRUCTION BID DOCUMENTS FOR WATER MAIN REPLACEMENT, CONSTRUCTION MANAGEMENT, AND INSPECTION SERVICES
PROJECT NO. W 19055 | I-10 CEDAR AVENUE INTERCHANGE IMPROVEMENT PROJECT











Michael Baker

INTERNATIONAL

Salahuddin Sheikh, PE, Structural Design

Mr. Sheikh has over four decades of experience related to bridges, water resources, public works, transportation, and environmental engineering for public and private sectors. Projects include bridges, flood control channels, water and wastewater treatment plants, reservoirs, pump stations, lift stations, well facilities, culverts and encasements, soundwalls and retaining walls. In the past 20 years, **he has prepared bridge special provisions for over 100 bridge projects including seismic retrofits, bridge widenings, bridge rehabilitation, and new or replacement bridges.**

Troy Edwards, PE, Project Engineer

Mr. Edwards is a civil engineer with seven years of experience. He has designed several pipeline projects in bridge crossings and is familiar with tailoring the design for different bridge and girder types such as bulb-tee girders and box girders. Mr. Edwards has recent experience with a very similar project that included an 18" steel water main replacement over the I-215 freeway in Colton, CA. He specializes in engineering design in Michael Baker's Water Resources Department and is experienced in the planning, analysis, and design of municipal water facilities. Mr. Edwards is involved in numerous distribution and transmission main projects for a broad range of diameters, site conditions, and pipe materials. He also has experience with hydraulic analysis, master planning, and water supply assessments. His projects have been for water agencies, the City of Colton, the City of San Buenaventura, and for other municipal clients.

John Duquette, Survey Construction Staking

Mr. Duquette has 30 years of professional surveying experience with a broad background in boundary and right of way analysis and calculations for transportation and road improvement projects for a variety of public agencies.

Pat Hanify, PE, Constructability Review and Construction Management

Mr. Hanify manages the Michael Baker Construction Management Department in the Inland Empire. His responsibilities include the processing and reviewing RFIs, CCOs, RFQs, shop drawings, and submittals. He also reviews baseline CPM schedules, progress payments, and bid documents; upholds code requirements; conducts progress meetings and organizes meeting minutes; coordinates daily operations with Contractors; performs field inspections and materials testing; documents projects utilizing record drawings, digital photography, observation reports

and quantities; coordinates with various agencies, utilities, and residents, ensures traffic control and site safety; and maintains public relations. His degree in engineering—coupled with his design experience in public works and water resources—gives him with a solid foundation for CM and inspection work. He has managed multiple projects for pipeline projects including those within Caltrans and Railroad Right of Way, he has also managed several projects for WVWD.

Aaron Singer, Construction Inspection / Field Engineering

Mr. Singer has been assisting with project management for Michael Baker Construction Management Department. His responsibilities include support with processing and in reviewing RFI's, CCO's, RFQ's, shop drawings and submittals. His work outside of Michael Baker providing design and field support in the commercial construction, transportation, and land development sectors has prepared him with a solid foundation for Construction Management and Inspection work. Aaron has provided field engineering and inspection services for multiple pipeline and public works projects in addition to the inspection and field engineering he has provided on multiple WVWD projects.





Subconsultant: Boudreau Pipeline Corporation (Potholing)

POTHOLING (Optional): Boudreau Pipeline Corporation Boudreau Pipeline was founded by Alan Boudreau in 1996 and has grown to more than 80 employees. As a subsurface utility engineering (SUE) company, specializing in wet utility contracting, Boudreau Pipeline truly understands the value of gathering good underground utility data prior to construction. Their goal as an SUE provider is to eliminate delays and extra costs associated with existing underground substructures. Boudreau Pipeline specializes in utility designating, locating (vacuum excavation) and mapping.

3. STATEMENT OF UNDERSTANDING AND APPROACH

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Packet Pg. 207



3. PROJECT UNDERSTANDING AND APPOACH

TECHNICAL APPROACH/METHODOLOGY

A major contributing factor to the success of Michael Baker's team methodology and approach to projects is the development of a thorough understanding of existing and proposed project conditions and the District's goals for the project. It is customary for Michael Baker to develop this understanding during the preparation of the proposal through data collection and review; comprehensive identification of all key issues and providing a preliminary evaluation of the key issues. Michael Baker's goal in implementing this methodology is to effectively set up the proposed team for immediate project kick-off if/when selected, to hit the ground running from Day One of the project.

Project Understanding and Approach

West Valley Water District has facilities located within SBCTA's proposed improvements along Cedar Avenue between Bloomington Avenue and Orange Street. Approximately 2,600 linear feet of 12-inch water main and 1,300 linear feet of 8-inch water main will need to be replaced to accommodate the street and bridge improvements.

This project will be executed in two Phases:

- Phase 1 This phase will accommodate the Bridge Widening, which will be constructed in two separate stages
- Phase 2 This phase will accommodate the Street Improvements to the north and south sides of the bridge.

On the Cedar Avenue Bridge OC and OH, the 8-inch water main is in a 16-inch steel casing and the 12-inch water main is in a 20inch steel casing. As part of the bridge widening project, the existing 8-inch and 12-inch water mains will need to be replaced. Steel casing will need to be installed all along within Caltrans right-of-way ("ROW") including the Cedar Avenue Bridge OC and OH. Michael Baker understands that WVWD has prior water rights and has existing agreements with the State of California. During the project, we will coordinate work with SBCTA for review and approval and obtain a Caltrans permit, and a Union Pacific Railroad ("UPRR") permit. On the South side of the Cedar Avenue Bride, We will coordinate the water line designs with Caltrans' retaining wall to avoid utility conflicts.

Beyond the bridge in the area indicated for street improvements, Michael Baker will coordinate with Caltrans, SBCTA, UPRR, and other stakeholders to ensure that the waterlines are relocated to areas consistent with improvement plans developed by other agencies.



Key Issues

Michael Baker has thoroughly reviewed the RFP, and enclosed documents. This information, and our experience on similar projects was utilized to develop the key issues which we believe are key to the success of the project. The following key issues have been identified for this important waterline replacement project:

Key Issue #1: Project Schedule

The District has requested that the pipeline design be of substantial completion on an extremely aggressive schedule for a project that will require multi-agency coordination and reviews. Based on Addendum 1, Phase 1 is indicated to be completed within one-hundred twenty (120) days (giving 81 total working days), and Phase 2 to be completed within one-hundred forty one (141) days (giving 96 working days) of the anticipated start date. Michael Baker's project team is based in the Temecula, Ontario, and Santa Ana offices, and our team has exceptional experience in pipeline replacement and bridge crossing projects. With multiple offices, Michael Baker has redundant staff capacity that can begin work immediately upon award of contract. Michael Baker understands the importance of this project and will work





tirelessly to meet the schedule goals, while producing a quality pipeline replacement design. We will leverage our experience and diverse talent pool to resolve issues quickly, begin agency coordination early, and fast-track the projects as efficiently as possible.

Key Issue #2: Bridge Crossings and Coordination

The replacement of Cedar Avenue OC and OH is assumed to be a two-span girder supported bridge on multi-column intermediate bent and end abutments. The new 8" and 12" diameter waterlines inside 16" and 20" diameter steel casings are to be installed on the west and east sides of the bridges (respectively). The pipelines will be supported by pipe hangers and rollers between the girders on the bridge deck. The support assembly will also be restrained laterally and longitudinally. The pipeline will pass through openings in the bent cap and abutment backwall conforming to Caltrans Standard Plan B7-10.

Coordination with the bridge designer is important on these projects in order to meet various design requirements, especially in the Caltrans ROW. For example, past similar projects have used precast bulb tee girders for the new bridges which makes the anchoring of roller support assemblies a critical coordination item. Anchoring locations must be relatively precise and cannot be too close to the bottom or top of the bulb tee girders due to reinforcing requirements. Steel pipe casings cannot be curved and the profile must be precisely laid out with specific support locations and depths from the bridge deck in order for proper installation. Michael Baker is experienced with the precise coordination required to obtain plan approval.

Furthermore, the overall geometry of the bridge can become important when evaluating the pipeline replacement design. Vertical curves in bridge replacements can pose a challenge to installing pipe with casings in a new bridge. Although significant vertical curves in the bridge profile are not anticipated for this project, Michael Baker has experience obtaining design exceptions with Caltrans when installing a steel casing was determined to not be feasible. Considering overpasses are usually high points within a given pipeline reach, Michael Baker typically recommends locating air release and vacuum valves outside of the bridge sections where possible for better maintenance access. In other words, the pipeline high point does not necessarily have to match the bridge high point if it allows the District to have easier access to pipeline appurtenances and works with other design constraints mentioned previously.

Key Issue #3: Selection and Location of Flexible Expansion Joints

To effectively protect the proposed hanging pipeline from stresses caused by ground motion and to accommodate movement in the pipe due to seismic displacement in the bridge, flexible expansion joints will be installed at both ends of the pipelines for each bridge crossing. Based on the bridge seismic displacement determined from the bridge design, the flexible expansion joints will be sized accordingly to accommodate the anticipated movement. As has been our experience with similar projects, typically vertical displacement is minimal, and the design of these joints is governed by the expected lateral and transverse displacement. Product options by leading manufactures (i.e. EBAA Iron) can negate thrust forces generated from the flexible expansion joints for smaller displacements (up to 4" +/- in any direction for the pipe sizes in this project). However, with larger seismic displacement products may not be available with the "force balancing" feature and thrust forces would need to be considered for the pipeline and bridge designs. Michael Baker is experienced in both design cases and can provide the appropriate design recommendations to the District.

In general, flexible expansion joints should be located as close as possible to the bridge abutment in order to function properly. The selected location and design must provide the means to effectively isolate the pipeline within the ground from the pipeline within the bridge so the two sections can move independently of each other during a seismic event. On similar projects, the exact location of the flexible expansion joint has been dictated by both the availability of access from the bridge deck as well as District preference. In past projects, access from the bridge deck (via a removable panel or similar) was not permitted. Therefore, typically the flexible expansion joint can be placed within the bridge section immediately after the abutment wall and supported by hangers, similar to the pipeline. For easier maintenance access to the District and to better accommodate pipeline encasements within the bridge section, Michael Baker recommends installing the flexible expansion joints within vaults in the approach slab as close as possible to the abutment wall, if project constraints allow.



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From the potholing information provided in Exhibit B there are several conflicts (both vertical and horizontal) identified with existing waterlines due to proposed storm drains. Per the current State Water Resources Control Board Department of Drinking Water (SWRCB-DDW) requirements, waterlines are to be installed 1 foot vertically and 4 feet horizontally (from pipe OD to OD) from storm drain pipelines. If these requirements cannot be met by either the new waterline to be constructed or proposed utilities crossing an existing or proposed waterline, a waiver request must be submitted to the SWRCB-DDW defining the reasons the standards cannot be met via another alternative and demonstrate and upgrade to the proposed pipeline for a similar standard of protection to public health. Michael Baker has extensive experience processing these waiver requests with the SWRCB-DDW should one be required for the waterline relocations as a part of this project.

Key Issue #5: UPRR Coordination

UPRR standard agreement is based on pipelines installed underneath of the tracks. However, these waterlines will be installed on an approach bridge going over the tracks. The standard UPRR 'Exhibit A' that identified the depth beneath the tract and the horizontal distances of t ablow grade casing cannot be used for coordination with UPRR.

Michael Baker reached out to UPRR during the proposal development and was advised to submit the application with a figure in replacement of 'UPRR Exhibit A' to begin the review process. Based on our experience with UPRR, we believe this could cause a revise and resubmit status of the application, with instruction on how to proceed. Due to the unique nature of this crossing, UPRR processing and coordination could be longer than the standard 45 days processing period.

Approach to Construction Management

Michael Baker will perform comprehensive construction management services throughout the entirety of a project and will provide technical and administrative management services for a project. Michael Baker will provide coordination and oversight of all activities related to the construction of the project, maintain close liaison with WVWD's designated staff. and copy the WVWD staff on correspondence. Michael Baker will provide professional construction management services including but not limited to Pre-Construction, Construction Management, Records, Construction Reports, and Project Administration in accordance with the requirements of the Scope-of-Work.



Michael Baker will serve as an extension of the District's staff. Our construction management team has extensive experience overseeing the construction of water infrastructure from the perspective of a public utility. We have the right background to understand and represent the District's interests and work diligently to manage the project budget and construction quality.

Role of the Construction Management Team

The primary role of your CM team is to represent the District by protecting District's investment, managing the project risks associated with change order costs and potential delays, and guiding the Contractor through the startup and commissioning process to deliver the four typical metrics of every successful project:

- 1. On Time. Manage the schedule so the project is delivered within the planned timeframe, including any verified extensions, from breaking ground to commissioning.
- 2. On Budget. Manage the construction process and change orders to deliver the project within the budget, the planned contingency, and without claims.
- 3. Quality. Implement a quality assurance process to deliver good workmanship, long-lasting value, and a well-constructed plant Operations staff readily accepts.
- 4. Safely Built. Deliver the project constructed in a safe manner by the Contractor, with no recordable accidents.



Managing the Schedule

Schedule is a key driver with any Project. We will diligently work with the District, Designer, and Contractor to identify potential delays before they arise and look to implement schedule reducing strategies. Our team will make sure that the Contractor provides their Look Ahead Schedules. The Look Ahead Schedule will include activity IDs, activity descriptions, and activity float values that correlate to the baseline schedule. Schedule will be updated prior to every progress meeting and communicated to all involved Subcontractors, inspectors, operation, and management staff. Reviewing the monthly schedule update will reflect the Contractor's schedule performance and forecast dates of key activities and milestones. It will also show the critical activities leading to the achievement date of key milestones. Reviewing the schedule with the Contractor will help facilitate practical solutions to enhance the construction schedule, identify issues that could potentially impact the schedule, and mitigate schedule delays when encountered. Our team's experience working with Contractors gives us a unique perspective into the Contractor's scheduling process and will provide valuable insight and practical knowledge to help facilitate proactive solutions to any schedule-related challenges.

CM Safety Approach

Safety is the priority of our team. The selected Contractors will be responsible for site safety, but our job will be to review and help to oversee the safety procedures developed by the Contractor. Michael Baker's internal SLAM Safety Program will be the centerpoint of our safety approach: Stop, Look, Assess, and Manage risks. Michael Baker's Regional Construction Services Team includes more than 20 Cal-OSHA Certified and safety trained professionals all with an excellent safety record. Safety is our top priority, with the commitment of the Executive Management at Michael Baker, our staff is prepared to monitor construction site safety.

Document Control System

Michael Baker utilizes password-protected, web-based, project specific Document Tracking System web-site (BOX.com). The BOX system is available to allow the District, and all project team members, to obtain up-to-date construction management and inspection information including: Plans and Specifications, NPDES Permit and SWPPP Compliance Reporting and Documentation, Daily Reports, Submittals, RFI's, Punch Lists, Materials Tickets and Test Reports, Meeting Minutes, and Images seamlessly 24 hours a day. Use of these technologies allows Michael Baker the ability to perform nearly every conceivable construction management task, efficiently and economically.

Ultimately, our team's overarching role is to make sure the District receives the full value of its investment in the construction contract and the CM oversight.

Contract Compliance Procedures

Michael Baker

INTERNATIONAL

Expediting and processing RFIs, submittal reviews, clarifications, change orders, and contract closeout activities are critical to all projects. The best opportunity to control and protect against change orders is during the processing of these documents and prior to the contractor mobilizing to site. Our approach is to review and respond to as many of the RFIs and submittals as possible in the field, before involving the Design/Reviewing Engineer. Clearly there are RFIs that only the Design Engineer can address, and in such cases we will immediately transmit such RFIs to the Design Engineer for review. In our experience, many RFIs can be addressed by simply pointing the General Contractor to the appropriate section of the Contract Documents. Part of our responsibility is to monitor and vet both the RFIs and responses for clarity, time impacts, scope changes, repeated questions, design intent changes, quality changes, cost changes, contract term changes, criticality, constructibility, response times, owner preferences, and solutions.

Proactive Dispute Avoidance & Resolution Leads to Fewer Claims

As the District's Construction Manager, Michael Baker will be the central conduit for communication between the Contractor, the District, and other jurisdictional parties. Our role is integral to managing requests for modifications in the Drawings and Specifications. Regardless of the good work that the consultant who prepared the contract documents has done, there will be differing site conditions, operational complications, equipment compatibility issues, conflicts or problems with the contract documents, and scope changes throughout construction of the project that will necessitate changes. Michael Baker applies a systematic approach to change order management so that contract changes are handled efficiently and fairly.

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3.4.d

Experience has taught us that the best way to resolve a conflict is to avoid it in the first place. Michael Baker will take actions to avoid disputes including:

- Help the District to allocate risks clearly and fairly based on the Contract Documents
- Perform contract obligations on-time and maintain complete records
- Define problems quickly and work diligently to contain the condition and minimize impacts
- Cooperate with other team members and remain flexible

If conflicts do arise, Michael Baker will lead efforts to resolve the issues outside of litigation. We will apply our experience and expertise within the framework established in the Contract Documents to work towards an acceptable outcome.

Michael Baker will give the District a clear picture of the substance and implications surrounding a potential change so that the District can make a well-informed decision.

The greatest opportunity to drive a project to success comes in the preconstruction phase. Our value to the client and the team comes from our "lessons learned" and our construction management systems to collect and manage information.



4. SCOPE OF WORK





3.4.d

After careful review of the RFP document and Addendum No.1, Michael Baker has prepared a scope of work for this project. Task items below follow the numbering of Task items in the RFP as closely as possible but have been adjusted where necessary in order to complete the Project. Therefore, the scope of work for this proposal and the included fee estimate is based on the scope of work provided herein.

Michael Baker has included sufficient time and budget in this proposal to manage the entire project from start to finish including progress, budget, and schedule oversight for all in-house and sub-consultant work.

Task 1 – Development of Construction Bid Documents

Task 1.1 – WVWD Coordination and Document Review

The Michael Baker team will review the proposed bridge design drawings, available as-built drawings, atlas maps, geotechnical reports, and all other relevant available documents provided by the District, to become familiar with the project needs and requirements. It is assumed that the District will provide all documents for review at the time of the kickoff meeting.

Michael Baker will also perform a site walk of the project area to observe and photograph the existing conditions and surrounding area.

Task 1.2 – Surveying

The RFP indicates that Caltrans completed a survey and the AutoCAD file will be available to Michael Baker to use for the project. Michael Baker has not included any additional topographic or field verifications survey and has assumed that all required information will be available in the survey files provided. Efforts associated with task will be to procure and process the provided data files for use with this project.

Task 1.3 - Conduct Existing Utility Research

Utility Investigation

Michael Baker will research existing utilities using a Dig-Alert web search for known utility purveyors along the pipeline corridors. Michael Baker will notify in writing each utility purveyor (as listed above) of the District's proposed plans and request copies of record drawings or atlas maps of existing and proposed facilities within the project boundary. We will prepare a Utility Notification Log to track utility company responses including contact information and dates of all outgoing and incoming correspondence. Utilizing the record drawings provided by the utility purveyors, existing facilities will be plotted in the CAD files.

Utilities will be placed in the project CAD files based on locations provided by the utility owner and as indicated in the Caltrans survey files. Vertical locations of utilities will be shown based on information available in the Caltrans survey files, utility record drawings, or at typical design depths if no information is available.

Site Walk

A site walk will be performed to become more familiar with the project area and to observe the area for any potential conflicts, including existing utility improvements, and to help verify utilities identified on record drawings.

Task 1.4 Geotechnical Services

The RFP indicates that Caltrans completed a geotechnical investigation and report that will be available to Michael Baker to use for the project. Michael Baker has not included any additional geotechnical investigations and has assumed that all required information will be available in the report provided. Efforts associated with task will be to review the report and incorporate recommendations into the project.





Task 1.5 Potholing

Up to five (5) potholes are included in the scope of work. This includes vacuum excavation, backfill with native material, and a surface repair using a cold patch of the hole at the surface. This also includes San Bernardino County permit procurement, Caltrans District 8 Permit Procurement, and traffic control plan for the pothole work. This does not include an encroachment for the UPRR right of way, and does not include railroad insurance, flagger, or other requirements for pothole locations within or impacting the UPRR right of way. Proposal pricing specifically excludes removal, protection and/or restoration of existing landscape, irrigation, trees, roots, hardscape, paying and/or other existing or proposed improvement not specifically included by name elsewhere in this proposal. Traffic Control if specifically included as a part of this proposal is per "WATCH" and excludes K-Rail, CMS, Traffic Control Plan, Special Signs, Special and/or Restricted Work Hours and any other special requirements if not specifically included by name. All paving is bid using temporary AC Cold Mix to a thickness of +/-4" to be maintained and/or replaced by others during the street improvements project. Proposal excludes removal of USA markings, permanent paving, concrete work, and or overlay.

The pothole fee indicated on the fee schedule accounts for 5 pothole locations, at a unit price of \$950/each. However, the unit price for pothole location is dependent on fixed mobilization costs and may increase if the work cannot be performed in a single mobilization.

Task 1.6 Permits

Michael Baker will identify and prepare a list of all applicable permits required for the construction of the replacement waterlines. These will include but are not limited to the County of San Bernardino, Caltrans, and UPRR.

Michael Baker will prepare necessary permit applications, exhibits, and supporting documentation as required by the governing agency and under direction from WVWD to obtain UPRR, County, and Caltrans approval of the design documents.

During pre-construction activities, the Contractor will obtain all construction related permits identified by the design team, and all other required permits to be identified by the Contractor. Permit assistance will be provided as identified in Task 2 for construction permits.

Probable permits and durations:

- Union Pacific Railroad Crossing Agreement: 45 days to process the design application; another 45 days to fully execute agreement; and up to 30 days for construction permitting.
- Caltrans Design Reviews: 60% and 90% submittals with two-week review periods, and potentially another approval review ٠ at the 100% design submittal.
- Caltrans design exception requests are assumed to not be required and may take an additional 2-3 weeks beyond the standard review time if required.
- County encroachment permits shall be applied for during pre-construction and are expected to take up to 3 weeks, • depending on the completeness of the contractor's application package.
- Waterboard submittal will be discussed with the District during the project. Title 22 exceptions are not anticipated.

Task 1.7 Preliminary Design

Michael Baker will prepare a 30% conceptual design indicating the recommended pipeline alignment, water system connection points, and attachment types to the bridge. The design will also include pipe materials, joint types, and coating of the pipelines for both buried service lines and lines within the bridge. The 30% design will be summarized in a technical Memorandum and will include exhibits of the preliminary design.

Task 1.8 - Prepare Plans, Specifications, and Engineer's Opinion of Probable Cost

Michael Baker will provide detailed design plans and technical specifications in accordance with WVWD's AutoCAD standards, design standards, standard drawings, and standard technical specifications. The bid proposal sections (front ends) will be provided by WVWD. Michael Baker will develop special provisions, special conditions, and additional technical specifications beyond the WVWD standard specifications as appropriate.



3.4.d

Plans and specifications will be provided in hard copy and digital electronic format in accordance with WVWD design standards. The plan set will include plan and profile sheets for the new water pipeline, and all details necessary for the construction of the proposed replacements. Drawings will be prepared in the latest version of AutoCAD on a standard 24-inch by 36-inch sheet size. Plan and profile sheets will be scaled at 1''=40' horizontal and 1''=4' vertical scale. Anticipated sheet lists for Phase 1 and Phase 2 are shown below.

As part of this task, Michael Baker will review the Caltrans bridge drawings and prepare structural calculations and analysis for supporting the pipeline along the bridge based on the Caltrans design. The calculations can be submitted to the District as an attachment to the final Technical Memorandum upon request.

Phase I: Cedar Avenue Bridge Widening	
Sheet 1	Title Sheet
Sheet 2	Layout, Sheet Index, & Abbreviations
Sheet 3	General Notes
Sheet 4	Cedar Ave Bridge 8-inch Water
	Plan and Profile
Sheet 5	Cedar Ave Bridge 12-inch Water
	Plan and Profile
Sheet 6	Pipe Support & Casing Details
Sheet 7	Flexible Joint Vault Section & Details
Sheet 8	Existing Utility Demo
Sheet 9	Connection Details
Sheet 10	Standard Details

Phase II: Co	edar Avenue Street Improvements
Sheet 1	Title Sheet
Sheet 2	Layout, Sheet Index, & Abbreviations
Sheet 3	General Notes
Sheet 4	Orange Street to I-10 Bridge 8-inch Water Plan and Profile
Sheet 5	Orange Street to I-10 Bridge 12-inch Water Plan and Profile
Sheet 6	I-10 Bridge to Bloomington Ave 8-inch Plan and Profile
Sheet 7	I-10 Bridge to Bloomington Ave 12-inch Plan and Profile
Sheet 8	Existing Utility Demo
Sheet 9	Connection Details
Sheet 10	Standard Details

Task 1.9 - Prepare Construction Schedule and Cost Opinion

Michael Baker will prepare a detailed itemized construction schedule using MS Project for the major work items and anticipated construction duration for the water line work. Separate schedules will be developed for Phase 1 and Phase 2 projects.

Michael Baker will prepare an Engineer's estimate of probable cost for Phase 1 and Phase 2 of the projects. The costs will be based on similar past projects and published industry data tables.

Task 1.10 Meetings

Michael Baker

INTERNATIONAL

During the project, Michael Baker will attend up attend ten (10) progress meetings with WVWD. One (1) internally with WVWD at kick-off, three (3) with Caltrans, one (1) at 30% conceptual design, one (1) at 60% design review, one (1) at 90% design review, and three (3) to coordinate responses to any Caltrans, Union Pacific Railroad ("UPRR"), and/or San Bernardino County review comments. When applicable, meetings will be held through a video conference call. If necessary, meetings will be held at West Valley Water District office located at 855 W. Baseline Road, Rialto, CA 92376, or at Caltrans District 8 offices at 464 W 4th St, San Bernardino, CA 92401. Michael Baker will provide a meeting agenda for each meeting and prepare meeting notes for distribution within three (3) working days of each meeting.

Task 1.11 Coordination of Deliverables

Michael Baker will coordinate with West Valley Water District ("WVWD") to submit all plans to Caltrans, UPRR, and San Bernardino County as necessary per their requirements. Michael Baker will coordinate responses to all Caltrans, UPRR, and San Bernardino County review comments with WVWD and incorporate agreed upon changes resulting from review comments into the plans until the Permit is approved.


Task 1.12 Bid Support Services

Michael Baker will assist the District during the bid period for the project. Our Project Manager will attend in the pre-bid meeting. The contractor's RFIs and RFCs will be answered, and an Addendum will be issued. For budgeting purposes, we have assumed that there will be ten (10) RFI's during the bid phase.

Task 2 - Construction Management Services

Michael Baker will provide construction management services to cover all major aspects of the Work as identified in the Task 2 scope items.

Task 2.1 Schedule Review

Michael Baker will review the progress schedule, schedule of Shop Drawing submissions, and schedule of values prepared by the Contractor and consult with WVWD's Project Engineer concerning their acceptability.

Task 2.2 Meetings

Michael Baker will schedule and attend a pre-construction meeting at the project site, arrange a schedule of bi-weekly progress meetings and other meetings as required in consultation with WVWD's Project Engineer and notify those expected to attend in advance. Michael Baker will prepare meeting agendas, attend meetings, and maintain and circulate copies of minutes.

Task 2.3 Liaison

Michael Baker will serve as WVWD's liaison with the Contractor, working principally through the Contractor's superintendent to assist him in understanding the intent of the Contract Documents. Michael Baker will also assist in obtaining additional details or information, when required at the job site for proper execution of the Work. Michael Baker will alert the Contractor directly and through his superintendent, to any known hazards involved in accepting or acting upon instructions from WVWD or others, except instructions transmitted through WVWD's Project Engineer or himself.

Task 2.4 Shop Drawings and RFIs

Michael Baker will review and approve Shop Drawing submittals per the Plans and Specifications. Michael Baker will advise WVWD's Project Engineer and the Contractor or his superintendent immediately of the commencement of any Work requiring a Shop Drawing submission if the submission has not been approved by WVWD's Project Engineer. Michael Baker will also respond to ten (10) Request for Information (RFIs) during project construction.

A total of 15 hours is included for shop drawing review, which includes at total 15 shop drawing submittals/resubmittals a budget of 1 hour for each submittal. A total of 10 hours are included for up to 10 responses to RFIs with a budget of 1 hour for each RFI.

Task 2.5 Review of Work, Rejection of Defective Work, Inspections and Tests

Michael Baker will conduct on-site observations of the Work in progress to assist WVWD's Project Engineer in determining that the Project is proceeding in accordance with the Contract Documents and that completed Work appears to conform to the requirements of the Contract Documents.

Michael Baker will report to WVWD's Project Engineer whenever they believe that any Work is unsatisfactory, faulty or defective or does not conform to the requirements of the Contract Documents, or does not meet the requirements of any inspections, tests or approval required to be made; and advise WVWD's Project Engineer when they believe the Work should be corrected or rejected or should be uncovered for observation or requires special testing or inspection.

The inspector will be on-site full time for an estimated 130 working days or 180 calendar days. The CM will be on-site for an estimate 24 hours in support of the inspector for this work.



When on-site, Michael Baker will verify that tests, equipment and systems start-ups and operating and maintenance instructions are conducted as required by the Contract Documents and in the presence of the required personnel, and that the Contractor maintains adequate records thereof; observe record and report to WVWD's Project Engineer appropriate details relative to the test procedures and start-ups.

Michael Baker will accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the outcome of these inspections and report to WVWD's Project Engineer.

2.6 Interpretation of Contract Documents.

Michael Baker will assist with the interpretation of contract documents and transmit to the Contractor with WVWD's Project Engineer's clarifications and interpretations of the Contract Documents.

2.7 Modifications.

Michael Baker will consider and evaluate the Contractor's suggestions for modifications in Plans or Specifications and report them with recommendations to WVWD's Project Engineer. Michael Baker will perform Change Order Analysis and make recommendations to WVWD's Project Engineer.

Task 2.8 Records

Michael Baker will maintain orderly files for correspondence, reports of job meetings, shop drawings and samples submissions, reproductions of original Contract Documents including all addenda, change orders, field orders, additional Drawings issued subsequent to the execution of the Agreement, WVWD's Project Engineer clarifications and interpretations of the Contract Documents, progress reports, and other Project-related documents.

The records will include an issue log and change order log, data relative to questions of extras or deductions, decisions, observations in general and specific observations in more detail as in the case of observing test procedures. Names, addresses and telephone numbers of all the Contractors, Subcontractors, and major Suppliers of equipment and materials will be kept in the project records.

Record files may consist of a combination of electronic and hard copy documents.

Task 2.9 Reports

Michael Baker will provide periodic reports as required of progress of the Work and the Contractor's compliance with the approved progress schedule and schedule of Shop Drawing submissions. The reports will be accompanied with photographic documentation of project progress. The report and photographs will be submitted in digital format no later than two days following the review of the work performed and will be submitted to WVWD's Project Engineer.

During Construction, Michael Baker will consult with WVWD's Project Engineer in advance of scheduled major tests, inspections or start of important phases of the Work to determine the inspection schedule.

2.10 As-builts

Michael Baker

INTERNATIONAL

Michael Baker will review and verify Contractor's redline as-builts against any know changes and observations and provide to WVWD's Project Engineer with an original hard and scanned copy of the redlines.

2.11 Payment Requisitions

Michael Baker will receive, review and confirm pay requests and forward them with recommendations to WVWD's Project Engineer. Michael Baker will review the applications for payment with the Contractor for compliance with the established procedure for their submission and forward them with recommendations to WVWD's Project Engineer, noting particularly their relation to the schedule of values, Work completed and materials and equipment delivered at the site, including final retention, substantially complete and recommended filing of Notice of Completion. Michael Baker has assumed that a maximum of eight (8) pay applications will be reviewed during the project.



2.12 Guarantees, Certificates, Maintenance and Operation Manuals.

During the course of construction, Michael Baker will verify that guarantees, certificates, maintenance and operation manuals and other data required to be assembled and furnished by the Contractor are applicable to the items actually installed; and deliver this material to WVWD's Project Engineer for review prior to final acceptance of the Project.

2.13 Completion.

Michael Baker will prepare a punch list of items observed items requiring correction before WVWD issues a Certificate of Substantial Completion. The punch list will be provided to the Contractor.

Michael Baker will conduct a final inspection in the company of WVWD's Project Engineer, Inspector, and Contractor and prepare a final list of items to be corrected. Michael Baker will verify that all items on the final list appear to have been corrected and make recommendations to WVWD's Project Engineer concerning acceptance.

2.14 Limitations

Except upon written instructions of WVWD's Project Engineer, Michael Baker will not:

- Authorize any deviation from the Contract Documents or approve any substitute materials or equipment.
- Undertake any of the responsibilities of the Contractor, Subcontractors, or Contractor's superintendent.
- Expedite Work for the Contractor.
- Advise on or issue directions relative to any aspect of the means, methods, techniques, sequences or procedures of construction unless such is specifically called for in the Contract Documents.
- Advise on or issue directions as to safety precautions and programs in connection with the Work.
- Authorize the Owner to occupy the Project in whole or in part.
- Participate in specialized field or laboratory tests.

Task 3 - Construction Inspection Services

Michael Baker will provide full-time presence of construction inspection staff to provide comprehensive observation and Inspection of the Contractor's work. Michael Baker will cover all major construction aspects of the work which can affect the quality and the long-term performance of the project. Michael Baker will provide and have at the project site all necessary equipment, tools, and supplies needed to carry out the required duties.

Inspection services fee included in this proposal are based on a project duration of one hundred and eighty (180) calendar days, which is assumed to be 130 working days. The actual time will be based on the Construction documents and the Contractor's performance. Additional fee will be required if the project duration extends beyond 180 days.

Michael Baker staff understands risks associated with construction site and will wear personal protective equipment, including appropriate headgear, footwear and reflectorized vest when on the project site.

At a minimum, Michael Baker will perform the following tasks as part of their construction inspection services:

- Review plans and specifications and other construction related documents.
- Photograph project prior, during and after construction.
- Interpret plans, specifications and regulations and ensure that contractors are following their contracts.
- Provide inspection to ensure projects are constructed according to project plans and specifications.
- Provide continuous inspection of the Work of the Contractor at the site when being performed.
- Maintain daily logs showing site and weather conditions; traffic control measures taken by the contractors: labor, equipment and materials used; quantity of work performed; and major incidents/safety violations.
- Daily logs submitted to the Construction Manager upon project completion.



- Monitor contractor's compliance with established safety regulations.
- Observe public safety and convenience.
- Coordinate with contractor access to adjacent businesses/residents during construction.
- Review soil compaction and materials testing.
- Ensure that contractors do not install materials without approved material testing.
- All failed tests will be noted and the Contractor notified that corrective measures are required.
- Issue preliminary and final punch lists including schedule for punch list completion.
- Upon project completion, conduct final inspection and project close-out.
- Prepare and submit as-built plans to the Construction Manager.
- Review and process Contractors request for final payment and release of retention.
- Deliver project files to the Construction Manager.
- Assist the Construction Manager with preparing monthly progress pay estimates including quantity measurement and calculations, documenting Contractor work performance and project events, keeping records of extra work performance, implementing minor changes in the work, implementing revisions to the plans and specifications, and developing estimates for contract change orders, and review of any extra work invoice.

Additionally, the inspection staff will coordinate and work closely with the construction management and construction support staff to complete the following tasks:

- Review the progress schedule, schedule of Shop Drawing submissions, and schedule of values prepared by the Contractor and consult with the Construction Manager concerning their acceptability.
- Verify schedules are on track with project milestones.
- Attend pre-construction meeting.
- Arrange a schedule of progress meetings and other meetings as required in consultation with the Construction Manager.
- Serve as WVWD's liaison with the Contractor, working principally through the Contractor's superintendent and assist him in understanding the intent of the Contract Documents.
- Assist in obtaining additional details or information, when required at the job site for proper execution of the Work.
- Alert the Contractor directly and through his superintendent, to the known hazards involved in accepting or acting upon instructions from WVWD or others, except instructions transmitted through the Construction Manager, WVWD's Project Engineer himself.
- Receive and record date of receipt of Shop Drawings which have been approved by the Construction Manager and WVWD's Project Engineer.
- Advise the Construction Manager and the Contractor or his superintendent immediately of the commencement of any Work requiring a Shop Drawing or sample submission if the submission has not been approved by the Construction Manager. Review of Work, Rejection of Defective Work, Observation of Inspections and Tests.
- Conduct on-site observations of the Work in progress to assist the Construction Manager in determining that the Project is proceeding in accordance with the Contract Documents and that completed Work will conform to the requirements of the Contract Documents.
- Report to the Construction Manager whenever they believe that any Work is unsatisfactory, faulty or defective or does not conform to the requirements of the Contract Documents, or does not meet the requirements of any inspections, tests or approval required to be made; and advise the Construction Manager when they believe the Work should be corrected or rejected or should be uncovered for observation, or requires special testing or inspection.
- Verify that tests, equipment and systems start-ups and operating and maintenance instructions are conducted as required by the Contract Documents and in the presence of the required personnel, and that the Contractor maintains adequate records thereof; observe record and report to the Construction Manager appropriate details relative to the test procedures and start-ups.

3.4.d

INTERNATIONAL



- Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the
 outcome of these inspections and report to the Construction Manager.
- Transmit to the Contractor the Construction Manager clarifications and interpretations of the Contract Documents.
- Consider and evaluate the Contractor's suggestions for modifications in the Plans or Specifications and report them with recommendations to the Construction Manager. Perform Change Order Analysis and make recommendations to the Construction Manager.
- Consult with the Construction Manager in advance of scheduled major tests, inspections or start of important phases of the Work.
- Review and verify Contractor's redline as-builts.
- During the course of the Work, verify that guarantees, certificates, maintenance and operation manuals and other data required to be assembled and furnished by the Contractor are applicable to the items actually installed.

Inspection Documents

The construction inspection staff will maintain orderly files for correspondence, reports of job conferences, shop drawings and samples submissions, reproductions of original Contract Documents including all addenda, change orders, field orders, additional Plans issued subsequent to the execution of the Agreement, the Construction Manager clarifications and interpretations of the Contract Documents, progress reports, and other Project-related documents. Record files may consist of a combination of electronic and hard copy documents.

Michael Baker field staff will Keep daily inspection sheets including taking pictures, recording hours on the job site, weather conditions, data relative to questions of extras or deductions, list of visiting officials, daily activities, decisions, observations in general and specific observations in more detail as in the case of observing test procedures each day they are on-site. Copies will be sent to the Construction Manager.

Michael Baker will record names, addresses and telephone numbers of all the Contractors, Subcontractors, and major Suppliers of equipment and materials.

<u>Reports</u>

Michael Baker will furnish periodic reports as required of progress of the Work and the Contractor's compliance with the approved progress schedule and schedule of Shop Drawing submissions. The reports will be accompanied with photographic documentation of project progress. Report and photographs will be submitted in digital format. Reports will be provided no later than two days following the review of the work performed and shall be submitted to the Construction Manager.

Payment Requisitions

Michael Baker will review applications for payment with the Contractor for compliance with the established procedure for their submission and forward them with recommendations to the Construction Manager, noting particularly their relation to the schedule of values, Work completed and materials and equipment delivered at the site, including final retention, substantially complete and recommended filing of Notice of Completion.

Completion

Before WVWD issues a Certificate of Substantial Completion, Michael Baker will submit to the Contractor a list of observed items requiring correction. Michael Baker will Conduct final inspection in the company of WVWD's Project Engineer, Construction Manager, and Contractor and prepare a final list of items to be corrected. Upon contractor completion, Michael Baker will Verify that all items on the final list have been corrected and make recommendations to the Construction Manger concerning acceptance.

Except upon written instructions of WVWD's Project Engineer, the Michael Baker Inspector will not:

- Authorize any deviation from the Contract Documents or approve any substitute materials or equipment.
- Undertake any of the responsibilities of the Contractor, Subcontractors, or Contractor's superintendent.
- Expedite Work for the Contractor.





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- Advise on or issue directions relative to any aspect of the means, methods, techniques, sequences or procedures of construction unless such is specifically called for in the Contract Documents.
- Advise on or issue directions as to safety precautions and programs in connection with the Work.
- Authorize the Owner to occupy the Project in whole or in part.
- Participate in specialized field or laboratory tests

Task 4 Construction Staking Services

12" Water Line Stakes

Michael Baker will provide one (1) set of line and grade stakes for the mainline located on 50-foot stations offset to the mainline at a distance agreed to by Baker and the Contractor. Stakes will be set at all pipe tee locations, if any, but no stakes will be set along the mainline at the connection to the service line. Instead, a stake will be set at the water service location as described below. All mainline stakes shall be marked with cut to flow line of the pipe, when pipe profile is shown on Baker's construction plans. Baker shall provide one line and grade stake for the fire hydrants and blow-off valves located on an offset at a distance agreed to by Baker and the Contractor. In addition, Baker shall set one line and grade stake for each water service and each air-release/air-vac on an offset distance agreed to by Baker and the Contractor. All of these appurtenance and service stakes shall be marked cut to top of curb. Cut sheets shall be prepared and submitted to Client for distribution. This scope is based upon 2,600 linear feet of water line to be constructed. Baker will provide these services in a maximum of wo (2) move-ins.

8" Water Line Stakes

Michael Baker shall provide one (1) set of line and grade stakes for the mainline located on 50-foot stations offset to the mainline at a distance agreed to by Baker and the Contractor. Stakes will be set at all pipe tee locations, if any, but no stakes will be set along the mainline at the connection to the service line. Instead, a stake will be set at the water service location as described below. All mainline stakes shall be marked with cut to flow line of the pipe, when pipe profile is shown on Baker's construction plans. Baker shall provide one line and grade stake for the fire hydrants and blow-off valves located on an offset at a distance agreed to by Baker and the Contractor. In addition, Baker shall set one line and grade stake for each water service and each air-release/air-vac on an offset distance agreed to by Baker and the Contractor. All of these appurtenance and service stakes shall be marked cut to top of curb. Cut sheets shall be prepared and submitted to Client for distribution. This scope is based upon 1,300 linear feet of water line to be constructed. Baker will provide these services in a maximum of wo (2) move-ins.

Key Understandings and Assumptions

- 1. Michael Baker can rely on all files provided by others without independent verification;
- 2. Survey and utility information provided by Caltrans and WVWD and others will extend through the entire project area
- 3. Flexible joints will be located in vaults and will not be hung under bridge
- 4. Based out our interpretation of the response to Question XXX in Addendum 1, Engineered Traffic Control are not need and are not included because they will be performed as part of the bridge and street improvements by others.
- 5. Water pollution control BMPs, traffic control, road striping, and other items not specifically listed in the scope in this document are excluded.
- 6. Caltrans, WVWD, and other agency reviews will be performed within the time allocated in the schedule in this proposal. Longer review periods by outside agencies may impact the project schedule and is beyond the control of Michael Baker.
- 7. Review fees, agreement fees, and expedition fees required by permitting agencies, including all UPRR fees, will be paid directly by WVWD and are not included in this fee proposal.
- 8. Caltrans survey during construction is not included. Survey work is limited to construction staking indicated in the scope.

Scope of Work Exclusions

Tasks that are not within the RFP scope of work may be included at the request of the District for a mutually agreed upon scope and fee. Scope of Work exclusions include but are not limited to the following:

- Traffic Control Plans
- Stormwater and erosion plans and BMPs
- Geotechnical Investigation

Michael Baker



- CEQA / Environmental Documentation
- Hydraulic Analysis
- Corrosivity Analysis
- Easement Legal Descriptions and Exhibits
- Non-Water Utility Relocations
- Site Survey
- Construction Testing not specifically identified in the scope
- Caltrans monitoring surveys

Review of Sample Agreement and Insurance Requirements

We appreciate the opportunity to preview the consultant services agreement that will be utilized by the West Valley Water District for this project. We have previously contracted with the District without issues and do not foresee any contracting issues with the project.

Approach to Ensuring Quality Deliverables

For the Michael Baker team, quality is not just about meeting the requirements of the RFP with respect to scope, schedule, and budget. Michael Baker applies a Project Specific Quality Management Plan (PSQMP) based on our Quality Assurance Program and requirements of the RFP. It is customized to reflect the purpose and level of complexity of your project. The PSQMP includes quality reviews of all draft and final deliverables prior to submittal to the District. It also includes monthly work status summary reports to communicate the project status and schedule adherence. Our Project Manager is responsible for developing the PSQMP and ensuring it is being carried out by the QA/QC team. They are also responsible for assigning the reviewers and addressing the recommendations of the quality reviews. However, we go three steps further to satisfy your needs:

- Our quality assurance begins with developing a close and continuous line of communication between our project team and District's project team. Our past experience indicates that good communication is a critical element to project success. Under our Quality Assurance Program, we keep an organized directory of all project related communications, documents, images, data, and plan sets, which allow us to respond quickly to your requests. Our Project Manager is responsible for seeking District's input throughout project development to ensure that we meet your needs. This proactive approach is used to anticipate and address quality issues before they become problems.
- 2. The project will receive a comprehensive internal peer review before Preliminary Submittal is provided to the District. The QA/QC panel verifies that tie-ins, alignments, and design details have been thoroughly reviewed to consider all constraints, impacts, site conditions, and constructability issues. Our Project Manager is responsible for scheduling the peer review and implementing the recommendations of the panel.
- 3. Companies don't design projects; people do. Quality starts with project team members that are excited about your project and ready to go the extra step to exceed your expectations. Our Project Manager promotes delivery of high-quality work by making the team members' tasks relevant to the project objectives, encouraging team members to select the activities that make sense to them to perform the tasks and meet the project objectives, recognizing team member contributions, and developing a collaborative climate where team members help each other to succeed and have the opportunity to interact with the beneficiaries of their work.

Coordination and Communication

This is an area in which the Michael Baker team excels in each of our projects. Our proactive, spirited approach to building positive team relationships while maintaining the mutual respect of all parties has been paramount to our success. Maintaining open lines of communication and having the entire project team develop a commitment to fostering cooperative teamwork will result in the resolution of critical issues in a timely manner.







AMPLE & AVAILABLE RESOURCES

Staffing depth that consists of multi-

disciplined workers who are knowledgeable in the District's established protocols and adept at mobilizing to support a high volume of projects across multiple platforms.



cross-training.

COST-EFFECTIVE STAFFING Retaining existing staff to

avoid the expense of

training new personnel. Employing

to a specific project, but to the overall

overcompensating for work performed

by overqualified staff and allows for

program in order to avoid

professionals who are well-suited not only



STABILITY FOR WORKERS & CONSISTENCY FOR THE DISTRICT

Allowing team members the opportunity to operate in different capacities **to accommodate** for slower or increased fluctuations in work will ensure quick turn-around times to inquiries.

Michael Baker's Project Manager, Miles Costanza, will be the primary point of contact for the duration of this contract. We believe that regularly scheduled (e.g. bi-weekly) progress check-ins via a teleconference are an efficient way of making sure that we are "on the same page" as the work progresses. We also anticipate that there will be frequent e-mail correspondence for more informal communication, as well as contact by phone when it's necessary to have more efficient discussion.

Cost Control

The adherence to strong cost control practices is essential to successfully delivering projects within the authorized budget. Michael Baker utilizes Oracle accounting software and other proprietary programs to record staff time sheets, track project costs, and generate weekly Project Labor Reports for each Project Manager. At Michael Baker, the Project Manager is responsible for continually reviewing and evaluating the project costs to verify that time spent corresponds to project work produced. The Project Manager maintains a Project Status Report (PSR), which tracks project schedule and deliverables along with project costs and invoicing. The Project Manager reviews the PSR monthly with the Department Manager and Area Operations Manager. These processes and cost control techniques allow for informed and timely decision making and have proven successful in keeping project within budget and on schedule.



Schedule Control

We continually review and evaluate the project cost through all project phases to allow for informed and timely decision-making. Cost control techniques include program budget analysis, value engineering, life-cycle cost analysis and quantity-based estimating. We rely on an open-book, inclusive process that demonstrates the costs and benefits of varying design options. This budget confirmation process starts in the earliest stages of the project, when design and engineering alternatives have the greatest potential impact on costs. Our design teams analyze client goals, technical requirements, alternative building concepts, construction costs and long-term operational costs to define the optimum scope within the budget, ensuring long-term flexibility and value.





PROJECT SCHEDULE

Addendum 1 provides tentative schedule with milestone dates. Michael Baker has reviewed these milestone dates and developed a detailed critical path schedule showing how the dates in Addendum 1 could be met.

No.	Task Name	Duration	Start	Finish	1st Quarter 2nd Quarter
				111 1 10/0/00	Dec Jan Feb Mar Apr May
1	Notice to Proceed and Kick-Off Meeting	1 day	Wed 12/2/20	Wed 12/2/20	▲ ^{12/2}
2	Prepare 30% Conceptual Design	24 days	Thu 12/3/20	Thu 1/7/21	1/7
3	Utility Coordiantion	28 days	Thu 12/3/20	Wed 1/13/21	1/13
4	30% Conceptual Design Submittal	0 days	Thu 1/7/21	Thu 1/7/21	▲ 1/7
5	30% Review Period	5 days	Fri 1/8/21	Thu 1/14/21	1/8 📥 1/14
6	30% Design Meeting (Comments Due)	0 days	Thu 1/14/21	Thu 1/14/21	↓ 1/14
7	Prepare 60% Stage 1 Design	14 days	Fri 1/15/21	Thu 2/4/21	1/15 2/4
8	Prepare 60% Stage 2 Design	20 days	Fri 1/15/21	Fri 2/12/21	1/15 2/12
9	60% Stage 1 Design Submittal	0 days	Thu 2/4/21	Thu 2/4/21	↓ 2/4
10	60% Stage 2 Design Submittal	0 days	Fri 2/12/21	Fri 2/12/21	✓ 2/12
11	60% Stage 1 Review Period	5 days	Fri 2/5/21	Thu 2/11/21	2/5 🃥 2/11
12	60% Stage 2 Review Period	4 days	Mon 2/15/21	Thu 2/18/21	2/15 🔁 2/18
13	UPRR Submittal Package	45 days	Mon 2/15/21	Fri 4/16/21	2/15
14	60% Stage 1 Comments Due	0 days	Thu 2/11/21	Thu 2/11/21	<mark>₹</mark> 2/11
15	60% Stage 2 Comments Due	0 days	Thu 2/18/21	Thu 2/18/21	₹2/18
16	Prepare 90% Stage 1 Design	15 days	Fri 2/12/21	Thu 3/4/21	2/12 🗙 3/4
17	Prepare 90% Stage 2 Design	26 days	Fri 2/19/21	Fri 3/26/21	2/19 📩 3/26
18	90% Stage 1 Design Submittal	0 days	Thu 3/4/21	Thu 3/4/21	▲ 3/4
19	90% Stage 2 Deisgn Submittal	0 days	Fri 3/26/21	Fri 3/26/21	₹3/26
20	90% Stage 1 Review Period	10 days	Fri 3/5/21	Thu 3/18/21	3/5 📥 3/18
21	90% Stage 2 Review Period	9 days	Mon 3/29/21	Thu 4/8/21	3/29 📥 4/8
22	90% Stage 1 Comments Due	0 days	Thu 3/18/21	Thu 3/18/21	₹3/18
23	90% Stage 2 Comments Due	0 days	Thu 4/8/21	Thu 4/8/21	4 /8
24	Prepare 100% Stage 1 Design	10 days	Fri 3/19/21	Thu 4/1/21	3/19 📩 4/1
25	Prepare 100% Stage 2 Design	10 days	Fri 4/9/21	Thu 4/22/21	4/9 📥 4/22
26	100% Stage 1 Submittal	0 days	Thu 4/1/21	Thu 4/1/21	▶ 4/1
27	100% Stage 2 Submittal	0 days	Thu 4/22/21	Thu 4/22/21	• 4/22

The Addendum indicates that the schedule is tentative and subject to change. Based on this, Michael Baker will welcome a discussion with the WVWD team upon selection on amendments to schedule based on our experience with similar projects. Some of the concerns that we have with the aggressive schedule are indicated below.

- The addendum indicates the schedule is based on Stages, and not Phases. We would welcome a discussion to revise the schedule to be based on Phases for the bridge work and the street improvements work, each Phase accommodating both Stages.
- UPRR typically requires 45 days to review application and this could extend the final approval of the UPRR agreement beyond the 100% deliverable date. Expedited review fees from UPRR can be significant.
- Utility coordination record drawings need to be provided in 28 days or less and will not be complete or known in the 30% design. Utility records received after this date could impact the project schedule if a conflict is found.
- Caltrans, UPRR, County and other agencies will need to complete reviews within the time allocated. If agency review times are not met, then the schedule could be impacted. We are concerned that Caltrans review periods may exceed the time allocated for 90% Stage 2, and both 60% Stages.
- Project changes, or design decisions changes made during the project could impact the project schedule. These changes could be initiated by Caltrans during their review as the bridge design and other utilities in the area are coordinated by the Caltrans coordinator.



5. REFERENCES





5. REFERENCES

Selected projects and references for our Project Manager and team are provided below, followed by a list of pipeline projects demonstrating Michael Baker's depth of experience in the design of similar projects.

Reference City of Chino 13220 Central Avenue Chino, CA 91710

Contact Maria Fraser, PE, CIP Civil Engineer Manager 909.334.3265 *Year Completed* Current

Staff

John Nagle, PE, QA/QC Miles Costanza, PE Design Lead Engineer, Caltrans Coordination Jerome Ruddins, CCM, Constructability Review

Reference City of Orange, Water Division 189 S Water Street Orange, CA 92866

Contact Tuan Cao 714.288.2492 tcao@cityoforange.org *Year Completed* Design 2019 Construction: Est 2021

Staff

Kevin Saleh, PE, Project Engineer John Nagle, PE, Design Manager Sal Sheikh, PE, Structural Engineer

Project Title: District of Chino 3 Bridge Replacement, Water and Sewer Relocation, State Route 60

Project included three separate design packages for water and sewer utility relocations in three separate bridges scheduled for replacement by Caltrans: Pipeline Avenue Bridge, State Route 60 Bridge Crossings, and Benson Avenue Bridge. Caltrans provided design of the bridge replacement and Michael Baker provided design plans for the replacement of water/sewer utilities owned by the District of Chino. Proposed replacement bridges included a thinner cross section that did not allow the replacement of utilities in-kind at the existing elevations. The replacement sewer lines could not maintain gravity flow within the new bridge cross-sections. Alternative options were evaluated for the sewer lines at each location. Construction plans and specifications were developed for the selected alternative at each location.

<u>Water Main Replacements – State Route 60 Bridge Crossings</u> Existing water mains were replaced to accommodate a new bridge with a thinner cross section. This project consisted of 300 linear feet of 12" steel water line in a 24" casing in the Monte Vista Avenue bridge replacement; and 320 linear feet each of 8" steel water in a 16" casing, 16" water line in a 24" casing, and 18" water line in a 24" casing in the Benson Avenue bridge replacement. Both locations included bypass lines for maintenance of operations during construction that were sequenced with the Caltrans bridge replacement sequencing. The design included detailed connections for vertical realignment in the bridge abutment area, flexible joints, casing, and casing hangars.

Project Title: Pipeline Replacement for Orangewood Avenue from Rampart Street to Eckhoff Street

Location: Orange, CA

Michael Baker has been designing the widening of Orangewood Avenue from five lane roadway into six lane divided facility, improving the arterial service level between the Santa Ana River and the East of the SR-57. The bridge will be widened to accommodate one additional westbound lane and sidewalk. As part of the scope of work for the Santa Ana Bridge (Orangewood Avenue)

widening design, Michael Baker designed approximately 2,000-ft of 16-inch Ductile Iron water transmission main. The new transmission main will traverse through the widened portion of the bridge crossing the Santa Ana River and continue easterly to tie-in to an existing pipeline at Eckhoff Street. The design included detailed connections in the bridge abutment area, flexible joints, casing, and casing hangars.





3.4.d



Reference

Rancho Mission Viejo, LLC 28811 Ortega Highway San Juan Capistrano, CA 92675

Contact Jim Yates 949.230.3363 *Year Completed* Ongoing Project, Construction Completion 2020

Staff

John Nagle, Design Manager Troy Edwards, Project Engineer Safa Kamangar, Technical Review Sal Sheikh, PE, Structural Manager Fabio Sanchez-Duran, SE, PE, Structural Engineer

Reference

City of Newport Beach 100 Civic Center Drive Newport Beach, CA 92660

Contact Fong Tse, Assistant City Engineer 949-644-3321 <u>ftse@newportbeacha.gov</u>

Year Completed: 2016

Staff

John Nagle, PE, Design Manager Sal Sheikh, PE, Structural Engineer Troy Edwards, PE, Project Manager Fabio Sanchez-Duran, SE, PE, Structural Engineer

Project Title: Domestic and Recycled Water Pipelines within the Cow Camp Road Extension

Michael Baker is currently working with the Rancho Mission Viejo Company on the extension of Cow Camp Road, an integral part of the 23,000-acre Ranch Plan located east of San Juan Capistrano in unincorporated Orange County. As a part of the project, the Michael Baker team is providing preliminary and final design services for Santa Margarita Water District's domestic water, recycled water, and sanitary sewer pipelines, including the design of approximately 7,500 LF of 24" Zone I domestic water transmission main and 7,500 LF of 30" recycled water transmission main. Some of the challenging project elements include a bore & jack crossing of the SCP in CWRP access road, bore & jack crossing of the Chiquita Creek, challenging geotechnical issues, and coordination with the major bridge structure over Chiquita Canyon and future extension of SR-241.



Project Title: Park Avenue Over Grand Canal Bridge Replacement Project *Location: Newport Beach, CA*

Michael Baker provided engineering design and environmental planning services for the replacement of the Park Avenue Bridge over Grand Canal.

In working with the City and the communities of Balboa Island and Little Balboa Island, Michael Baker developed bridge replacement strategies for the deteriorating 1930, which is the only link (besides watercraft) between Balboa Island and the small adjacent island known as Little Balboa. Michael Baker also provided design and phasing of an 8-inch waterline replacement that spanned the approximately 110 linear foot (LF) bridge.

Pipeline design included five re-connection points to the existing water system, air/vac design and placement within the new bridge section, flex tend design and placement, pipeline support details within the bridge, and pipeline alignment section with existing utilities.









Reference City of San Juan Capistrano

Contact Eric Bauman, PE (949) 487-4312

Staff Jerome Ruddins, CCM Bill Seitz, PE Kieler Smith, PE Nora Doyle

Reference West Valley Water District 855 West Baseline Road Rialto. CA 92376

Contact

Bertha Perez, Associate Engineer 909-875-1804 x 349 *Year Completed* Construction Completion 2020

Staff Patrick Hanify, Construction Manager Aaron Singer, Field Engineer

Project Title: Ortega Highway Interchange Pipeline Relocation, CIP No. 11805

Location: San Juan Capistrano, CA

Michael Baker provided construction management and inspection services on this \$1,990,113 pipeline replacement project for the City of San Juan Capistrano. The work included: installing approximately 3,611 LF of 12" PVC pipe; 700 LF of 12" CML&C pipe to be constructed in the 1-5 Bridge; abandonment and relocation of water lines; services and appurtenances; and the removal of ACP. Michael Baker's duties included: project management; construct administration; construction management; construction inspection; relief inspection; construction engineering support resident engineering; scheduling; community outreach and public relations; monitoring the Contractor's traffic control and safety plan; monitoring environmental compliance, surveying, soils and material testing, and welding testing; and testing & setup.



Project Title: Bloomington Area Waterline Replacement Project, Phase 3A

Michael Baker provided construction management, construction monitoring, and contract administration services for this \$1.5 million project involving the installation of new 8" mainline, abandonment of existing services and mainline, and relocation of existing service laterals to serve Zone 2, in the Bloomington Area, as part of Phase IIIA. Work consisted of the installation of 5,601 LF of CML&C waterline, 141 relocated service laterals, 14 new Fire Hydrant assemblies, and repaving operations along 10th Street & 11th Street, between Linden Ave. and Locust Ave., and along Maple Ave. Michael Baker is integrally involved in verifying quantities and ensuring quality control; providing community relations and monitoring site safety; coordinating survey; conducting bi-weekly progress meetings and preparing minutes; monitoring project schedules; and preparing and processing control documents.





6. ADDITIONAL INFORMATION







Michael Baker does not have additional information at this time.



7. COST ESTIMATES OF CONSULTING FEE



3.4.d



DEVELOPMENT OF CONSTRUCTION BID DOCUMENTS FOR WATER MAIN REPLACEMENT, CONSTRUCTION MANAGEMENT, AND INSPECTION SERVICES PROJECT NO. W 19055 | I-10 CEDAR AVENUE INTERCHANGE IMPROVEMENT PROJECT

7. Cost Estimates of Consulting Fee

			Wa	ater			Structural			CM & In	spection		-	Sur	vey	Total		Direct/Repro	Total
		Principal/	Project	Senior Engineer	Project	Structural	Structural	Structural	Admin Sunnort	Const. Manager	Field	Field	Office	Licensed	1-Person Crew	Estimated Hours	Labor	Subcontract Costs	Estimated
-		\$ 280.00	\$ 220.00	\$ 195.00	\$ 165.00	\$ 245.00	\$ 225.00	\$ 130.00	\$ 70.00	\$ 178.00	\$ 115.00	\$ 125.00	\$ 70.00	\$ 210.00	\$ 180.00	Tiouro	COST	00010	100
			5			d1)		P											
TASK 1	DEVELOPMENT OF CONSTRUCTION BID DOCUMENTS											· · · · ·							
1.1	WVWD Coordination and Document Review		1.5	8	8	4	8			1						28	\$ 5,660.00	\$ 100.00	\$ 5,760.00
1.2	Surveying		-		4		_									4	\$ 660.00	\$ -	\$ 660.00
1.3	Conduct Existing Utility Research				16											16	\$ 2,640.00	\$ 500.00	\$ 3,140.00
1.4	Geotechnical Services				4		4									8	\$ 1,560.00	\$ -	\$ 1,560.00
1.5	Potholing (5 holes)				2										8	10	\$ 1,770.00	\$ 11,000.00	\$ 12,770.00
1.6	Permits			24	8		· · · · · · · · · · · · · · · · · · ·							2		32	\$ 6,000.00	\$ -	\$ 6,000.00
1.7	Preliminary Design		16	20	40	8	16	4								104	\$ 20,100.00	\$ 100.00	\$ 20,200.00
1.8	Prepare P, S, and E - Phase 1 (Bridge Widening)	8	8	40	160	12	16	40		Î						284	\$ 49,940.00	\$ 100.00	\$ 50,040.00
1.8	Prepare P, S, and E - Phase 2 (Street Improvements)	8	8	40	160	12	16	16		1						260	\$ 46,820.00	\$ 100.00	\$ 46,920.00
1.9	Construction Schedule and Cost Opinion	4	4	4	20	4		10								46	\$ 8,360.00	\$ -	\$ 8,360.00
1.10	Meetings		40	40												80	\$ 16,600.00	\$ 1,000.00	\$ 17,600.00
1.11	Coordination of Deliverables		4	8									8			20	\$ 3,000.00	\$ 500.00	\$ 3,500.00
1.12	Construction Bid Services		8	30				2 2								38	\$ 7,610.00	\$-	\$ 7,610.00
	TOTAL AMOUNT (TASK 1):	20	88	214	422	40	60	70	0	0	0	0	8	0	8	930	\$ 170,720.00	\$ 13,400.00	\$ 184,120.00
TASK 2	CONSTRUCTION MANAGEMENT		10.																
2.1	Schedules									3						3	\$ 534.00	\$ -	\$ 534.00
2.2	Meetings (14 Meetings Total)					0			16	35						51	\$ 7,350.00	\$ 900.00	\$ 8,250.00
2.3	Liason				_]			24						24	\$ 4,272.00	ş -	\$ 4,272.00
2.4	Shop Drawings and RFI's (15 Submittals and 10 RFI's)						16		8	25						49	\$ 8,610.00	\$ -	\$ 8,610.00
2.5	Review of Work									24						24	\$ 4.272.00	\$ 75.00	\$ 4,347.00
2.6	Interpretation of Documents	1								16						16	\$ 2.848.00	\$ -	\$ 2.848.00
2.7	Modifications (Assumes 3 Modification Requests)					<u> </u>				6					13	6	\$ 1.068.00	\$	\$ 1.068.00
2.8	Records								8	6						14	\$ 1.628.00	\$ -	\$ 1.628.00
2.9	Reports							2	8	9						17	\$ 2,162.00	\$ -	\$ 2,162.00
21	As-Builts								8	4						12	\$ 1,272.00	\$ -	\$ 1,272.00
2 1 1	Payment Reviews								4	8						12	\$ 1,704,00	\$ -	\$ 1,704.00
212	n&M's								4	4						8	\$ 992.00	s -	\$ 992.00
213	Completion									24						24	\$ 4 272 00	\$ 25.00	\$ 4 297 00
	TOTAL AMOUNT (TASK 2):	n	0	n	n	0	16	n	56	188	n	n	0	0	0	260	\$ 40,984,00	\$ 1.000.00	\$ 41,984,00
TASK 3	INSPECTION									100								1,000100	
31	Full time observation (130 days)		T		1	1		1	-		865					865	\$ 99.475.00	\$ 2,500,00	\$ 101 975 00
37	Massurements and Lons							0			6					6	\$ 690.00	\$	\$ 690.00
33	Schedules and Meetings (14 Meetings Total)									1	20					20	\$ 2 300.00	¢ 2	\$ 2,300,00
3.0	Shon Drawings									1	20					20	\$ 2,300.00	¢ ¢	\$ 2,308.00
3.5	Paviaw of Inconctions and Taste	-								1	20					20	\$ 2,300,00	¢	\$ 230.00
3.6	Internetation of Documents										6					6	\$ 690.00	¢ ¢	\$ 690.00
2.0	Modifications		1					-			6		-			6	\$ 690.00	¢ ¢	\$ 690.00
2.0	Pacarde					1				1	8				-	6	\$ 600.00 \$ 600.00	φ φ	© 600.00
2.0	Penete		1		1						65			-		65	\$ 7.475.00	φ - τ	\$ 7.475.00
2.0	As Builts					÷		·2		-	e a			· · · · ·		6	¢ 7,473.00	φ -	¢ 7,473.00
2.10	Parment Paviewa		1							1	6					6	\$ 030.00 \$ 600.00	φ -	¢ 600.00
3.11	Common Contraction							0			0				-	0	\$ 090.00	ф -	\$ 090.00
3.12	Completion					-		-	-		24	-		-		24	\$ 920.00	ф -	\$ 920.00 \$ 2.760.00
0.10	TOTAL AMOUNT (TASK 2)	0	0	0	0		0	0	0	0	24	0	0	0	0	4040	\$ 2,700.00	• - •	\$ 422,700.00
TACK .				<u> </u>							1040				1 0	1040	* 119,000.00	2,000.00	* 122,100.00
INOR 4	CONSTRUCTION STARING		1		1	1							1	0	10	24	r 4,500.00		e 4.500.00
4.1	12 water Line Stakes													0	01	24 16	¢ 4,500.00	φ - ς	4,000.00
4.2	TOTAL AMOUNT (TASK 4)	0	0	0	0	0	0	P	n	0	p	0	0	0	0	10	 3,120.00 7,600.00 	\$	 3,120.00 7,600.00
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Appendix - Team Resumes

Momcilo (Momo) Savovic, P.E. | Principal In Charge

Mr. Savovic has more than 33 years of national and international experience in consulting engineering with experience including infrastructure design, evaluation and assessment; project management; organizational assessments/facilitation services; planning; and construction management.

Mr. Savovic provided process/mechanical assessments for a variety of water treatment and conveyance systems, including water networks, water mains, potable, and recycled water pump stations, wells, reservoirs, and treatment plants. His responsibilities have included field investigations; condition assessments; preparation of plans, specifications, and cost estimates; hydraulic analyses; equipment selection; and onsite construction management services.

Mr. Savovic developed the project delivery methods class curricula to the San Diego School of Architecture undergraduate program. In his academic work, he is relying on alternative delivery research and guides developed by the American Institute of Architects (AIA), Construction Management Association of America (CMAA), the Design Build Institute (DBI), and Water Design-Build Council (WDBC). His academic work focuses on the best value approach in alternative delivery in general, in progressive design-build delivery. He is successfully bridging academic research with fieldwork and Industry standards, working closely with leading

Years with Michael Baker: 22 Years with Other Firms: 4

Degrees

M.E. in Environmental Engineering, 1995, University of Alberta, Canada

M.S. in Mechanical Engineering, 1992, The University of Sarajevo

B.S. in Mechanical Engineering, 1980, The University of Sarajevo

Licenses/Certifications

Registered Mechanical Engineer, California #M32229, Washington #38468, A.B. #m54851 Diplomate Environmental Engineer, #04 20001

progressive design build teams in the Nation. Mr. Savovic is tri-lingual; he speaks English, German, and Serbian.

Experience

Rosedale Water Treatment Plant, City of Edmonton AB - Environmental Engineer. Mr. Savovic provided the performance evaluation of coagulation, flocculation, sedimentation, filtration, and U.V. disinfection processes. The conformance of the plant performance with the regulatory permit requirements was evaluated based on the review of 1-year worth of process logbook data. Alum and powdered activated carbon are the first chemicals added to the water after the inlet screening process. High-intensity chemical mixing is done at the low-lift pump station or mixing chamber. Following rapid mix, a polymer is added, and the water is then slowly mixed to encourage the formation of floc. The floc later settles out of the water by gravity at the bottom of a clarifying basin in the process of sedimentation. Once the dirt-laden floc settles to the bottom of the basin, sludge is removed, and the clear water is decanted from the surface. The flocculation process and settling tank chemical consumption were evaluated based on the truck manifests and logbook data.

Water Treatment Plant – Water Supply System for the City of Addis Ababa, City of Addis Ababa - Team Leader. Mr. Savovic provided design and construction management services during the construction of the groundwater component of the City of Addis Ababa potable water supply project. Also, Mr. Savovic participated in the surface water scope of work, including the site selection for the 200 (mgd) water treatment plant on the Northside of the mountain range. The Degrmont group provided the water treatment plant and included the preliminary screening and treatment, flocculation and sedimentation tanks, and disinfection system. The groundwater component included a 56,000 LF of 36" DIP backbone water supply pipe that feed downtown via a network of reservoirs and booster pump stations. The groundwater component, 25 wells and wellfield interconnecting pipeline network were designed and constructed. The design team included hydrogeologist, geotechnical, and survey subcontractors.





Mr. Savovic managed the design and construction management team augmenting the City CM staff during the project execution; reviewed shop drawings, specifications, and submittals; addressed and processed RFI's, change orders, and progress payments; prepared monthly reports and meeting minutes; and provided part-time construction activity observation and inspection. Additionally, he supervised the maintenance of a CIPO electronic file-sharing site.

Carlsbad Desalination Plant, City of Carlsbad, CA - Construction Manager. Mr. Savovic was Construction Manager during the commissioning phase and project closeout for the \$1 billion, 50 (mgd) desalination plant. As a part of construction management services, a pre-construction document review of the water distribution system was completed. The commissioning plan and the conveyance system set of design drawings and specifications were reviewed and edited.

Lake Hodges and Olivenhain Reservoir Hydro Project, San Diego County Water Authority. Mr. Savovic was a Senior Project Manager providing engineering services during the construction, including the post-construction project settlement dispute for the \$150 million Lake Hodges Pump/turbine project. He also led a claim analysis and claim assessment team after project completion. The Lake Hodges Projects has four components: Pipeline Tunnel It is a 10-foot diameter underground pipeline, contained in a 1.25mile-long tunnel, and connects the two reservoirs. Pump Station 40 (M.W.) pump/generator moves the 2x250 (mgd) to 2x506 (mgd) water back and forth between the two reservoirs and generates electricity.

It provides electricity to the pump station and sends power from the pump station to a local transmission system. Inlet-outlet Structure It is located below the water surface in the Hodges Reservoir. It draws and discharges water between the Hodges Reservoir and the pump station.

Chino Desalter Program Management, CDA, Ontario CA - Assistant Program Manage. Mr. Savovic assisted the Program Manager during the preparation of the Program management plan and the plan implementation. The Chino II Desalter was initiated by the Chino Desalter Authority (CDA) to provide water deliveries to the cities of Norco, Ontario, Jurupa Community Services District, and Santa Ana River Water Company. The treatment processes include Reverse Osmosis (R.O.) and Ion Exchange (IX). The Chino II Desalter became operational in 2006 and was expanded in 2010. The Chino II Desalter produced an average of 10.6 MGD of drinking water in 2012. The Chino II Desalter produces a little more than 1 MGD of brine that is transported by the Inland Empire Brine Line (IEBL) to Orange County and is subsequently discharged to the ocean.

Water treatment plant performance evaluation Watershed management program, Anhui province, PRC - Team lead. Mr. Savovic completed the site visit and conducted an audit of water treatment facilities providing the service to 65 million people in the Province of Anhui PRC. The audit was focusing on the elements that were contributing to the hypergentrification of the Lake Chaohu source water, one of the largest potable water lakes in the PRC. The water treatment plant operation, particularly chemical consumption and sedimentation processes were evaluated, data collection completed, and condition assessment completed during the 8-week field site residency.



Miles W. Costanza, P.E., LEED AP | Project Manager

Mr. Costanza has professional engineering experience in water and wastewater treatment, pump stations, storage tanks, piping, and condition assessment. He has a proven record of experience in producing detailed designs, plans, specifications, and in construction management in the water and wastewater industry. He has led teams consisting of contractors, structural engineers, geotechnical engineers, electrical engineers, and corrosion engineers for the condition assessment, rehabilitation, design, and construction of water infrastructure improvements. He has also served as a project engineer on a wide variety of remote facility projects; including wastewater treatment plants, wastewater lift stations, potable water pump stations, welded steel water storage tanks, gas chlorination systems and water main replacements.

Years with Michael Baker: 2 Years with Other Firms: 9

Degrees

B.S., 2006, Civil and Environmental Engineering, Arizona State University

Licenses/Certifications

Professional Engineer, Arizona, 2013, 55059

LEED Accredited Professional, 2008

Professional Engineer - Civil, California, 2017, C87843

Experience

3 Bridge Replacements, Water and Sewer Relocations, State Route 60, City of

Chino - **Project Engineer.** Project included three separate design packages for water and sewer utility relocations in three separate bridges scheduled for replacement by Caltrans. Proposed replacement bridges included a thinner cross section that did not allow the replacement of utilities in-kind at the existing elevations. The replacement sewer lines could not maintain gravity flow within the new bridge cross-sections. Alternative options were evaluated for the sewer lines at each location. Construction plans, and specifications were developed for the selected alternative at each location.

Pipeline Avenue Bridge: Roswell Gravity Sewer, *City of Chino* – **Project Engineer.** The project consisted of 2,200 linear feet of 12" VCP gravity sewer pipe to eliminate the sewer bridge crossing. Also, as part of this project, a flow study was performed to determine current and future flows, determine to capacity of the existing system at the connection point, and project capacity of future septic convers to determine an acceptable rerouting of the existing sewer to avoid installation of a pump station or sewer siphon in the replacement bridge.

Water Main Replacements – State Route 60 Bridge Crossings, *City of Chino* - **Project Engineer.** Existing water main were replaced to accommodate a new bridge with a thinner cross section. This project consisted of 300 linear feet of 12" steel water line in a 24" casing in the Monte Vista Ave. bridge replacement, and 320 linear feet each of 8" steel water in a 16" casing, 16" water line in a 24" casing, and 18" water line in a 24" casing in the Benson Avenue bridge replacement. Both locations included bypass lines for maintenance of operations during construction that were sequenced with the Caltrans bridge replacement sequencing. The design included detailed connections for vertical realignment in the bridge abutment area, flexible joints, casing, and casing hangars.

Benson Avenue Bridge Sewer Siphon, *City of Chino* – **Project Engineer.** The project included the design of a sewer siphon complete with flow monitoring and hydraulic evaluation of the siphon to replace a gravity sewer in a proposed replacement bridge. Project also included evaluation of other replacement options including raising the existing system to increase invert elevations, installation of a packaged pump station, and rerouting of the sewer to another crossing location. Installation options included both a jack-and-bore and a horizontal directional drill beneath the **freeway to allow** the installation of dual 8" HDPE or FPVC siphons in an HDPE casing beneath the freeway, and dual 4" PVC vents placed in the bridge deck.

R_BCVWD 1-10-18. *Beaumont Cherry Valley Water District.* Pipeline Engineer. Responsible for water line alignment study, utility verification, evaluating system connections, and general project oversight.

R_MVWD PSA 8-17-17. *West Valley Water District.* Hydraulic Engineer. Project engineer responsible for engineering calculations, pump station design, vendor coordination, discipline coordination, design drawings and specifications.



Wastewater Conveyance On-Call Engineering Services, Pima County, Arizona. *Pima County.* Project Engineer. Responsible for relief sewer design drawings and stakeholder coordination. As part of an on-call contract, Michael Baker completed a feasibility analysis for an approximate 3.5-mile sewer line to service the Pima County Fairgrounds. The study included technical memos on population forecasting and future service demand, analysis of two conceptual alignments, development of conceptual infrastructure plans, probable costs, hydraulic analysis, permitting and clearances, and identification of schedule impacts. The project required additional coordination with state and federal agencies because the sewer lines crossed state land as well as many Section 404 jurisdictional washes. Due to Michael Baker's exceptional performance, the project scope was expanded to determine the phasing of the Fairgrounds' existing seepage ponds to a gravity sewer system with equalization ponds.

Main Street and Lindsay Sewer Relief Line Replacement, Mesa, Arizona. *City of Mesa, Arizona.* Project Engineer. Responsible for review of project drawings and ensuring client review comments were properly addressed. Michael Baker provided design; plans, specifications, and estimate (PS&E); and permitting for over 9,000 linear feet of 12-inch to 18-inch gravity sewer main. Michael Baker also performed a topographic survey and designed sewer diversion manholes and a sewer crossing under the Arizona Eastern Canal.

Harquahala Valley Water System Master Plan Conceptual Design, Harquahala Valley, Arizona. *CV Harquahala, LLC.* Project Engineer. Responsible for creating a hydraulic model, infrastructure sizing calculations, defining system layouts and developing cost opinions. Also responsible for development of project infrastructure sizing report, client meetings, and coordination with other consultants. The Harquahala Valley Water Project is a collection of wells and water rights held by private agencies. The project aims are to transmit water from the Harquahala Valley Water Project well sites to the Central Arizona Canal. Michael Baker is responsible for constructing a hydraulic model of the system and provide recommendations of the type, size, alignment, and location of project infrastructure. The model consists of over 20 miles of pipe, ranging from 8-inch to 40-inch in diameter, over five miles of open surface canals, 19 ground water wells, 15 inline booster pump stations, two transmission pump stations, and two reservoirs. The total capacity of the system is approximately 30,000 GPM of peak flow, and a total annual capacity of approximately 35,000 acre-feet per year of water delivery. The hydraulic model is also used to determine infrastructure quantities and develop an opinion of probable construction costs.

Air Lane Water Main Replacement (Air Lane 28th Street - 36th Street and Washington St - 28th Street to 40th Street), Phoenix, Arizona. *City of Phoenix, Arizona.* Project Engineer. Responsible for water line alignment, utility verification, determining and verifying system connections, connection details, client meetings, and project drawings, and general project oversight. Michael Baker has been supporting the City by providing on-call engineering services for the Water Main Replacement Program since 2001. The Michael Baker team provided design services for the replacement of 11,000 linear feet (LF) of water main along Air Lane and Washington Street. The project included design of a 12-inch transmission main to replace an aging water line. This project included coordination with the City's Aviation Department, multiple Union Pacific Railroad (UPRR) Crossings, and cathodic protection of the water main. The proposed water main was designed along a complex street corridor that included a significant amount of existing utilities. In addition, Michael Baker had to design around and make interconnects to an existing 54-inch transmission main that was constructed in the 1950s. This project also included the challenge of having a portion of the proposed water line running parallel to the existing light rail corridor.

On-Call Water Main Replacements, Phoenix, Arizona. *City of Phoenix, Arizona.* Project Engineer. Responsible for water line alignment, utility verification, determining and verifying system connections, connection details, client meetings, and project drawings, and general project oversight. Michael Baker has supported the City since 2001 by providing on-call engineering services for the Water Main Replacement Program. City project experience includes 4-inch to 12-inch-diamater water main replacement designs up to 27,000 linear feet, cut and plug details to abandon existing substandard mains, and water services from 50 to 800 connections. In addition, Michael Baker has provided surveying services for several projects covering over 59,000 linear feet of city roadways. Tasks included establishment of horizontal and vertical control, records research, right-of-way mapping, topographic surveys for design, digital terrain models (DTM), permitting, and compilation of utility as-built drawings and other records for utility base mapping.



Zone 1, 1A, and 2 Water Infrastructure Improvements, Phoenix, Arizona. *City of Phoenix.* Project Engineer. Responsible for construction phase services of water infrastructure improvements including submittal review, response to RFIs, site inspections, and review of construction documents. Improvements included a 20 million gallon vertical turbine booster pump station and the installation of 1,000 linear feet of new 36-, 48-, and 60-inch steel water mains.

South Mountain Reservoir 1-ES3 Pipe Line Modifications, Phoenix, Arizona. *City of Phoenix.* Project Engineer. Responsibilities included construction administration services including submittal review, response to RFIs, and review of construction documents during the construction phase of the new pipeline project. This project provided a new 48-inch inlet pipe, installed by boring beneath an existing jurisdictional dam. The inlet carrier pipe was placed in a steel casing pipe and filled with cellular concrete to the meet the requirements of Arizona Department of Water Resources Dam Safety Program. Also included in the project was of design and construction of a 60-inch connection to Zone 1 pressure transmission main into the South Mountain reservoir and a new discharge structure inside the reservoir including modifications to the existing membrane liner to accommodate the new penetration. The tie-in connection to the existing 60-inch Zone 1 pressure transmission main included 48- and 60-inch isolation butterfly valves and valve vaults.

Water Line Relocation for I-17/SR 69 Cordes Junction Traffic Interchange, Cordes Junction, Arizona. Arizona Department of *Transportation.* Project Engineer. Responsibilities included the development of plans and specifications for the water line relocation necessary to facilitate the new roadway design. This project reconfigured the traffic interchange to improve safety and the operational characteristics of the interchange. To accommodate these changes, existing water lines were relocated to avoid construction conflicts with the road, and to relocate the water utilities in an accessible area once the roadway improvements were complete.

Western Canal Water Main Improvements, Gilbert, Arizona. *Town of Gilbert.* Design Engineer. Responsible for the preliminary design, alignment evaluation and coordination, design oversight, and construction administration. This project included 5000 feet of new 20-inch water transmission line, isolation valves, air release valves, combination air vacuum and air release valves, and appurtenances. The project was located along an existing canal, within a recreational park, and beneath high-voltage overhead wires.

City of Mesa, Brown Road Water Treatment Plant Improvements, Mesa, Arizona. *City of Mesa.* Project Engineer. Responsible for technology evaluations, conceptual design report, design implementation, and final design of improvements at the Brown Road Water Treatment Plant. This project included the evaluation and recommendation of algae mitigation technologies, evaluation and recommendations for pump check valve replacement options, and installation of surge mitigation improvements identified in a previous analysis for the finished water pump stations. The surge mitigation improvements included a hydro-pneumatic surge tank, a relief tank, silent check valve installation, and associated site piping improvements.

Crossroads Lift Station Odor Control Study, Gilbert, Arizona. *Town of Gilbert.* Design Engineer. Responsibilities included field investigation, technology evaluation, cost estimating, and conceptual design. Evaluated multiple odor mitigation technologies including chemical scrubbers, bio-scrubbers, carbon polishing units and in-ground biofilters for cost and performance for the removal of hydrogen sulfide and other odorous compounds from a raw sewage lift station located in a residential area. Equipment foot-print and piping requirements were also evaluated to determine if the proposed equipment could be placed in an existing site with limited space availability.

Wastewater Pump Back Pipeline and Wet Well Rehabilitation, Scottsdale, Arizona. *City of Scottsdale.* Project Engineer. Responsibilities included conceptual design, construction administration, inspection, and field investigation. This project included the repair and rehabilitation of a section of deteriorated sewer forcemain pipeline and coating failures in a wastewater pump station wet well. Job-Order-Contract design services including pipe material selection, piping alignment, and coating recomme



John Nagle, P.E. | QA/QC

Mr. Nagle has practiced in the field of civil engineering for over 30 years and has extensive experience in planning, designing, and providing construction support services for major water and wastewater facilities. He has been responsible for the preparation of numerous construction plans, specifications and cost estimates for water and sewer pipelines, water pumping stations, wastewater lift stations, wells, and reservoirs. He has also prepared master plans for both municipal and private-sector clients for potable water, sanitary sewer, and recycled water systems. Mr. Nagle has used his combination of planning and design experience to prepare capital improvement programs, condition assessment studies, and engineering feasibility studies. He is a proven Team Leader and well-respected Project and Task Manager, committed to delivering technically sound and innovative design solutions.

Experience

OC-44 Pipeline Rehabilitation/Replacement Project, Orange County, California. *Mesa Water District.* Task Manager. Responsible for water resources. Mesa Water District recently selected Michael Baker to complete a rehabilitation/replacement evaluation and cathodic protection study for the OC-44 Pipeline. The OC-44 pipeline runs approximately 8.6 miles through Orange County. Michael Baker will provide a comprehensive plan to investigate the condition of the existing pipeline, evaluate repair and/or replacement strategies, and identify permitting and follow-on technical studies required to implement the recommended strategy. The contract value for the study is nearly \$200,000, and work is underway to meet the requested May delivery date.

Years with Michael Baker: 32 Years with Other Firms: 0

Degrees

M.S., 1996, Civil Engineering, Loyola Marymount University

B.S., 1987, Civil Engineering, Loyola Marymount University

Licenses/Certifications

Professional Engineer - Civil, Arizona, 2009, 49684

Professional Engineer - Civil, Guam, 2015, CE 1851

Water Rights Surveyor, Nevada, 2001, 1101

Professional Engineer - Civil, Nevada, 2001, 14762

Professional Engineer - Civil, Utah, 2009, 7214109-2202

EM-20 Turnout and Transmission Main, Riverside County, California. *Rancho California Water District.* Engineer. Responsible for water resources engineering. Michael Baker provided engineering services for approximately 20,000 linear feet of 54-inch diameter welded steel pipeline and 100-cfs turnout from the MWD aqueduct. The project will supplement its treated imported water supply by providing 100-cfs additional capacity to its service area in southwestern Riverside County.

EM-21 Turnout Facility and 1305 Zone Pipeline Improvements, Temecula, California. *Rancho California Water District.* Project Manager. Responsible for project management. Michael Baker provided engineering and surveying services for construction of a new 80 cfs turnout facility from San Diego Pipeline No. 6, a Metropolitan Water District of Southern California facility. As part of turnout facility design, Michael Baker's responsibilities included electrical and instrumentation, structural design, surge analysis, and operational evaluation. The project also included the conversion of 31,000 linear feet of existing 48-inch-diameter raw water supply pipeline to a potable water transmission main, abandonment of RCWD's existing EM-19 Turnout Facility, design of 6,300 linear feet of new 48-inch-diameter transmission main in Ynez Road, 1,400 linear feet of 36-inch-transmission main in Butterfield Stage Road, and 1,500 linear feet of 24-inch-transmission main in Margarita Road and La Paz Road.

SNWA 340C-02 Hacienda Pumping Station Improvements, Clark County, Nevada. *Southern Nevada Water Authority.* Water Resources Engineer. Responsible for water resources engineering. Michael Baker provided engineering and construction phase services to Southern Nevada Water Authority (SNWA) for the Hacienda Pumping Station On-Site Improvements Project. Preliminary and final design services included expansion of the plant telephone system; a new compressed air piping system, with nine -inch service drops located on all three levels of the pumping station; on-site drainage improvements, including sub-drain and sump pump installation; on-site grading for a new on-site substation; an 8-foot-high perimeter wall and on-site retaining walls; property boundary verification; 22 legal descriptions; coordination with 11 adjacent property owners; and attendance at Planning Commission meetings.



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Southwest District Pipeline Replacement Projects, Gardena, Hawthorne, Inglewood, California. *Golden State Water Company.* Project Manager. Project Manager for Imperial Highway and Prairie Avenue pipelines. Michael Baker provided professional engineering services for the Southwest District Pipeline Replacement Project. The project includes pipeline replacements in four separate areas. Michael Baker provided extensive utility research and field investigation to confirm locations of existing service connections and other appurtenances, prepared final construction drawings, coordinated with the Department of Health Services for utility waivers, and coordinated with Caltrans for encroachment permits as required for the temporary closure of connector ramps to I-105.

Norwalk Pipeline Improvement Project, Norwalk, California. *Golden State Water Company.* Project Manager. Responsible for project management. Michael Baker was retained by Golden State Water Company to provide engineering services for design of water distribution pipeline replacement projects in their Norwalk System in Pioneer Boulevard and within the adjacent residential subdivision. These pipeline projects were necessary to address leaks, hydraulic deficiencies, inaccessibility and the deteriorating condition of the existing pipelines, which were built prior to 1960. The project included the installation of 1,300 LF of 12-inch DIP and 10,000 LF of 8-inch DIP, as well as the relocation of over 275 domestic water services. The project was constructed in two phases to ensure that 1,000 LF of pipeline within Pioneer Boulevard was constructed prior to a City of Norwalk paving project. The project also included close coordination with the California Department of Health Services to secure waivers for the installation of some of the new mains adjacent to existing non-potable facilities.

El Dorado Colonia Potable Water System Improvements, El Centro, California. Project Manager. Michael Baker provided professional engineering and surveying services under the Corps of Engineers' 219 Program. The work for this project included preparation of digital base maps by compiling survey data from the County of Imperial. Michael Baker also provided professional surveying services to provide topographic data for areas not covered by the County survey and to verify the County survey data. The project included the construction of 8-inch, 10-inch, and 12-inch potable water distribution system and the installation of water meters, and the extension of service laterals to residential parcels. The project also required extensive coordination with the Imperial Irrigation District and the California Department of Transportation.

Lake Mead Drive Raw Water Transmission Main, Henderson, Nevada. Project Manager. Michael Baker provided professional engineering, surveying, and mapping services for approximately 4,000 LF of 16-inch ductile iron pipeline constructed along Lake Mead Drive in Henderson, Nevada. The purpose of the project was to provide additional raw water transmission capacity to the Lake Las Vegas development from the City of Henderson's connection to the BMI pipeline. This project also included the design of metering facilities, pressure relief facilities, and a technical drainage study update for the extension of existing culvert crossings at Lake Mead Drive. In addition, the project required extensive coordination with the City of Henderson and NDOT for construction permitting along Lake Mead Drive.

City of Beverly Hills, Water System Capital Improvement Projects, Beverly Hills, California. *City of Beverly Hills Public Works Department.* Project Manager. Michael Baker provided complete design engineering and construction staking services for the City's capital improvement program, which included water transmission main replacements, pressure reducing stations installation, street improvements, and traffic signalization. Michael Baker coordinated with City staff, local merchants, residents, and Caltrans to select pipeline alignments and establish construction schedules which would minimize disruption to traffic, local businesses and local residences.



Kevin Saleh, P.E. | Technical Review

Mr. Saleh has over two decades of experience as a civil engineer. His professional experience includes planning, design, construction management, and construction support services for a variety of public works projects, with specific areas of practice in water and wastewater. His relevant experience includes water distribution and treatment facilities, pumping facilities, treatment plant projects/processes, reservoirs, pressure reducing and surge facilities. Wastewater projects include conveyance systems, pumping stations, and treatment plant projects and processes.

Experience

8-inch and 6-inch Water Main Replacement in Westford Street, Ardmore Street and Calle del Norte Street, Orange County, California. *City of Anaheim.* Project Manager. Responsible for design and preparation of construction bid documents for abandonment and replacement of existing, aging 4-inch and 8-inch DIP with new 6inch and 8-inch PVC C-900 including water services and located in Westford, Ardmore and Calle del Norte streets.

Years with Michael Baker:1 Years with Other Firms: 22

Degrees

Diploma, 2004, Computer Programming, Seneca College

BSc, 1990, Civil Engineering, University of Tabriz

Licenses/Certifications

Professional Engineer, Maryland, 36759

Professional Engineer - Civil, California, 2019, 90535

Hawthorne Boulevard Water Main Replacement (from Lomita Blvd. to PCH) and Crenshaw Water Main Replacement (from Artesia Blvd to 181st Street). Los Angeles County, California. *City of Torrance*. Project Manager. Responsible for design of 7,000-footof 12-inch and 16-inch D.I. pipes. The project consisted of the installation of new water mains, valves, fire hydrants, service lines, meters and the abandonment of existing water mains.

Signal Hill Pipeline and Pump Station, Signal Hill, California. *City of Signal Hill.* Assistant Project Manager. Responsible for overseeing the design and preparation of project specifications. Michael Baker is preparing plans, specifications, and construction cost estimates for recycled water improvements to View Park. Proposed by the city of Signal Hill, these improvements consist of approximately 6,300 feet of 6-inch pipeline and a new pump station to deliver 40 acre-feet annually to the park. Michael Baker is providing design services in two phases. The first phase of design, already completed, requires an irrigation supply of 17 gallons per minute and a pressure of 60 psi at the intersection of Cherry Avenue and Burnett Street. Michael Baker has also performed a feasibility study and a pipe alignment study to determine the best location for the proposed pump station.

Culver Boulevard Area Main Replacement, Los Angeles County, California. Golden State Water Company. Senior Project Engineer. Responsible for the design of replacement of existing, aging 4-inch and 6-inch cast iron water main with 8-inch DIP or PVC in Culver Boulevard from Sepulveda Boulevard to Overland Avenue and in Wagner Street from Sepulveda Boulevard to Coombs Avenue (approximately 7,000 feet). The project also includes relocation of 1-inch and 2-inch services and meters and abandonment of the existing water mains in the alley east of Culver Boulevard and in Wagner Street.

Wilmington Avenue Area Main Replacement. Los Angeles County, California. *Golden State Water Company.* Senior Project Engineer. Responsible for the design of replacement of existing aging 4-inch and 6-inch cast iron water main with 8-inch PVC C-900 in 130th Street from Wilmington Avenue to Mona Blvd. (approximately 3,800-ft). The project also includes replacement of 1-inch and 2-inch services and meters and abandonment of existing water mains in this reach.



Salahuddin M. Sheikh, P.E. | Structural Design

Mr. Sheikh has over 40 years of experience related to water resources, public works, transportation, and environmental engineering for public and private sectors. Projects include water and wastewater treatment plants, reservoirs, pump stations, lift stations, well facilities, culverts and encasements, soundwalls and retaining walls, flood control channels, and bridges. Serivng as the Quality Control Engineer for various projects, Mr. Sheikh has provided consistent plans and specifications, checked design and quantities, and ensured the contract documents cover all items of work. He is experienced in structural inspection, evaluation, repairs, and rehabilitation of water related facilities, as well as in inspection, repair, retrofit and rehabilitation of reservoirs and pump stations. Mr. Sheikh also served as an expert witness for a reservoir project.

Experience

OC-44 Pipeline Rehabilitation/Replacement Project, Orange County, California. *Mesa Water District.* Structural Engineer. Responsible for structural engineering. Mesa Water District recently selected Michael Baker to complete a rehabilitation/replacement evaluation and cathodic protection study for the OC-44 Pipeline. The OC-44 pipeline runs approximately 8.6 miles through Orange County. Michael Baker will provide a comprehensive plan to investigate the condition of the existing pipeline, evaluate repair and/or replacement strategies, and identify permitting and follow-on technical studies required to implement the recommended strategy. The contract value for the study is nearly \$200,000, and work is underway to meet the requested May delivery date.

Years with Michael Baker: 31 Years with Other Firms: 14

Degrees

M.S., 1972, Civil Engineering/Structures, University of Michigan at Ann Arbor

B.S., 1970, Civil Engineering, University of Karachi Pakistan

Licenses/Certifications

Professional Engineer - Civil, Arizona, 2000, 34539

Professional Engineer - Civil, California, 1981, 32677

Professional Engineer - Civil, Nevada, 2000, 14418

Professional Engineer - Civil, Ohio, 1976, 41224

Professional Engineer - Civil, Utah, 2013, 8546772-2202

Professional Engineer - Civil, Guam, 2015, 1841

U.S. Route 101 / Main Street Interchange - Caltrans, District 5, Santa Maria, California. *Santa Barbara County.* Structural Designer. Responsible for structural engineering. Michael Baker prepared final plans, specifications, and estimates for operational improvements to an interchange located in the City of Santa Maria at the existing freeway interchange of U.S. Route 101 and S.R. 166 (Main Street). The improvements reconfigured three of the four existing ramps to increase the capacity of the interchange. Significant improvements also were required outside state right-of-way, affecting existing city streets and a large regional drainage channel. This project, which is the first plans, specifications, and estimates package completed entirely in metric units for Caltrans District 5, required coordinating among the Santa Barbara County Association of Governments, Caltrans District 5, the City of Santa Maria, the Santa Barbara County Flood Control District, and the design team.

Whiting Ranch Zone 9 Reservoir and Transmission Main, Orange County, California. *Irvine Ranch Water District.* Engineer. Responsible for structural engineering. Michael Baker provided preliminary and final design for the Whiting Ranch Zone 9 Reservoir and Transmission Main Project, which included a 2.5-million-gallon prestressed concrete reservoir and approximately 6,700 linear feet of 24-inch steel pipeline within an environmentally sensitive wilderness park. Michael Baker's services included alternative site analysis, alternative pipeline alignment analysis, scour analysis, agency coordination, a public input program, community involvement, and environmental coordination and compliance.

State Route 79 / Winchester Road Improvements, Riverside County, California. *Lennar Corporation.* Structural Engineer. Responsible for structural engineering. Michael Baker provided traffic engineering services to assess traffic-impact mitigation measures and prepare preliminary plans and cost estimates for the circulation improvements that were proposed in the environmental impact report for the Harveston Specific Plan. Michael Baker also prepared the final plans, specifications, and estimates for improvements to the intersections of I-15 and S.R. 79, S.R. 79 and Margarita Road, and S.R. 79 and Ynez Road, and for the widening of the Ynez Road Bridge.



EM-21 Turnout Facility and 1305 Zone Pipeline Improvements, Temecula, California. *Rancho California Water District.* Structural Engineer. Responsible for structural engineering. Michael Baker provided engineering and surveying services for construction of a new 80 cfs turnout facility from San Diego Pipeline No. 6, a Metropolitan Water District of Southern California facility. As part of turnout facility design, Michael Baker's responsibilities included electrical and instrumentation, structural design, surge analysis, and operational evaluation. The project also included the conversion of 31,000 linear feet of existing 48-inch-diameter raw water supply pipeline to a potable water transmission main, abandonment of RCWD's existing EM-19 Turnout Facility, design of 6,300 linear feet of new 48-inch- diameter transmission main in Ynez Road, 1,400 linear feet of 36-inch-transmission main in Butterfield Stage Road, and 1,500 linear feet of 24-inch-transmission main in Margarita Road and La Paz Road.

Wells 21 and 22 Wellhead Facilities and Pipelines, Tustin, California. *Irvine Ranch Water District.* Structural Engineer. Responsible for structural engineering. Michael Baker was responsible for engineering services necessary to support the final design, bidding, and construction of the wellhead facilities, untreated water, product water and brine disposal pipelines. Deliverables included plans, specifications and engineers estimates of probable construction costs for each the wellhead facilities and all pipelines. Well 21 and Well 22, with capacities of 3,300 gpm and 1,600 gpm respectively, are submersible turbine pump / motor assemblies, installed within vaults, and one well is equipped with a bladder-type surge tank. Project included 7,000 ft. of 24-inch steel untreated water pipeline, 13,000 feet of 36-inch steel product water pipeline and 1,700 LF of 10-inch HDPE brine concentrate pipeline. The pipelines required jack-and-bores to cross the OCTA Metrolink train tracks, an Orange County Flood Control District channel, BNSF train tracks, a box culvert, and Peter's Canyon Channel. Michael Baker was responsible for processing Orange County Flood Control encroachment and discharge permits, cities of Tustin and Irvine encroachment permits, OCSD class 1 wastewater discharge and trunk sewer connection permits, SCRRA/OCTA Metrolink right of entry/crossing agreements, an OSHA tunneling permit, a Caltrans encroachment permit, and a BNSF - right of entry/crossing agreement.

Big Bear Lake 2010 and 2011 Pipeline Replacement Project, Big Bear Lake, California. *City of Big Bear Lake.* Structural Engineer. Responsible for structural engineering. Michael Baker prepared design plans and specifications for the replacement of approximately 30,000 linear feet of distribution pipeline within the residential streets in the City of Big Bear Lake. The focus of the replacement was to increase existing pipeline diameters to handle fire flow events and to replace aging and deficient infrastructure. Timely completion of the project was necessary due to grant funding from the United States Department of Agriculture. The project had unique issues such as replacing pipelines within a new alignment corridor in narrow, curved, and steep roadways that were already crowded with existing utilities. Right-of-way and roadway pavement in some cases were not congruent and easements were prepared. Alternative pipeline alignments were provided to shorten sections of easements required, minimize impacts to mature trees adjacent to the roadway, and to alleviate pipe bends and deflections. Detailed site visits were performed in order to best fit locations of hydrants and appurtenances in the narrow streets. The Seminole well was designed to pump directly to the potable water system upon disinfection, with the Seminole well requiring additional treatment to comply with the Environmental Protection Agency's and California Department of Water Resource's Surface Water Treatment Rule and the Enhanced Surface Water Treatment Rule requirements. The Seminole Well treatment facility, designed for the full 250 gpm rated flow capacity of the well, consisted of a two-stage pressure filtration system.

Technology Drive Improvements, Irvine, California. *Irvine Company.* Structural Engineer. Responsible for structural engineering. Michael Baker provided civil engineering services for a multi-family residential subdivision. The project involved extensive coordination.



Troy J. Edwards, P.E. | Project Engineer

Mr. Edwards is experienced in the planning, analysis, and design of municipal water facilities. He has been involved in numerous distribution and transmission main projects for a broad range of diameters, site conditions, and pipe materials. Mr. Edwards also has experience with hydraulic analysis, master planning, and water supply assessments.

Experience

OC-44 Pipeline Rehabilitation/Replacement Project, Orange County, California. *Mesa Water District.* Designer. Responsible for CADD design. Mesa Water District recently selected Michael Baker to complete a rehabilitation/replacement evaluation and cathodic protection study for the OC-44 Pipeline. The OC-44 pipeline runs approximately 8.6 miles through Orange County. Michael Baker will provide a comprehensive plan to investigate the condition of the existing pipeline, evaluate repair and/or replacement strategies, and identify permitting and follow-on technical Years with Michael Baker:6 Years with Other Firms: 0

Degrees

M.S., 2016, Civil Engineering, University of California, Irvine

B.S.C.E., 2013, Civil Engineering, Water Resources, University of California, Irvine

Licenses/Certifications

Professional Engineer - Civil, California, 2017, 87425

Professional Engineer - Civil, Guam, 2017, 1979

studies required to implement the recommended strategy. The contract value for the study is nearly \$200,000, and work is underway to meet the requested May delivery date.

Atlantic Avenue Cast Iron Main Replacement, Long Beach, California. *Long Beach Water Department.* Designer. Responsible for CADD design. Michael Baker provided engineering services for approximately 10,000 linear feet of new eight-inch ductile iron pipe to replace the cast iron water main on Atlantic Avenue between the intersections with 405 Freeway/Spring Street and Pacific Coast Highway. Michael Baker's services included design, permitting, and traffic control.

Santa Margarita Water District (SMWD) Middle Chiquita Canyon Water Facilities, Orange County, California. *Santa Margarita Water District.* Designer. Responsible for CADD design. Michael Baker provided preliminary and final design services for a total of approximately 23,200 linear feet (LF) of domestic and recycled water transmission mains, two 2.0 million gallon (MG) domestic water reservoirs, and one 4.0 MG recycled water reservoir, which serve the Rancho Mission Viejo Company's Sendero and Esencia Developments. The project also included: alternative pipeline alignment analysis for routes through environmentally sensitive areas and agricultural areas; grading phasing analysis; and coordination with the Rancho Mission Viejo Company, California Department of Public Health, San Diego Gas and Electric, and the California Department of Fish and Wildlife.

Creekside Well (GFR Well No. 2) Wellhead Facilities and Pipeline, Dana Point, California. *South Coast Water District.* Designer. Responsible for CADD design. Michael Baker is currently providing well and pipeline design services for a new South Coast Water District (SCWD) production well in Creekside Park, within the City of Dana Point. The new well, which is proposed to augment the supply of brackish groundwater to its existing reverse-osmosis groundwater recovery facility (GRF), will be drilled and equipped within a challenging 3,700-square-foot area located adjacent to park facilities, San Juan Creek, and other existing utilities running through the well site, requiring various setback considerations during preliminary design. In addition to providing design services and permitting support for the construction and equipping of the Creekside well, Michael Baker is also tasked to design approximately 1,200 feet of 10-inch-diameter raw water pipeline, including a 300-foot segment along the Stonehill Bridge, across the San Juan Creek.

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John R. Duquette, P.L.S. | Survey/ Construction Staking

Mr. Duquette has many years of professional surveying experience with a broad background in boundary and right of way analysis and calculations for transportation and road improvement projects for a variety of public agencies.

Experience

District 6 - **Phase 1 Water Main Replacement, Pomona, California.** *City of Pomona.* Technician. Responsible for CADD mapping. Michael Baker provided engineering services for the District 6 Phase 1 water main replacement, which consisted of three separate projects in various streets within the City of Pomona. The design called for replacement of undersized and corroded water mains in Aliso Street, Westwood Place, Willow Street, Penfield Street, Bershire Way, Artesia Street, Willart Place, Queen Ann's Walk, and Fairplex Drive. The project consisted of utility plan

Years with Michael Baker: 15 Years with Other Firms: 15

Degrees

A.S., 1996, Surveying and Mapping, Santa Ana College

Licenses/Certifications

Professional Land Surveyor, California, 1999, 7566

research, potholing, and field walks to determine existing utilities. Various plan reviews at major submittal levels were held with the city to confirm the city's acceptance of the plans. This project included details for the resurfacing of most of the residential streets that were in need of repair.

Big Bear Lake 2010 and 2011 Pipeline Replacement Project, Big Bear Lake, California. Big Bear Lake, City

of. Technician. Responsible for CADD mapping. Michael Baker prepared design plans and specifications for the replacement of approximately 30,000 linear feet of distribution pipeline within the residential streets in the City of Big Bear Lake. The focus of the replacement was to increase existing pipeline diameters to handle fire flow events and to replace aging and deficient infrastructure. Timely completion of the project was necessary due to grant funding from the United States Department of Agriculture. The project had unique issues such as replacing pipelines within a new alignment corridor in narrow, curved, and steep roadways that were already crowded with existing utilities. Right-of-way and roadway pavement in some cases were not congruent and easements were prepared. Alternative pipeline alignments were provided to shorten sections of easements required, minimize impacts to mature trees adjacent to the roadway, and to alleviate pipe bends and deflections. Detailed site visits were performed in order to best fit locations of hydrants and appurtenances in the narrow streets. The Seminole well was designed to pump directly to the potable water system upon disinfection, with the Seminole well requiring additional treatment to comply with the Environmental Protection Agency's and California Department of Water Resource's Surface Water Treatment Rule and the Enhanced Surface Water Treatment Rule requirements. The Seminole Well treatment facility, designed for the full 250 gpm rated flow capacity of the well, consisted of a two-stage pressure filtration system.

Back Basin Blending Pipeline, Lake Elsinore, California. *Elsinore Valley Municipal Water District.* Technician. Responsible for CADD mapping. Michael Baker prepared the design for the Back Basin Wells Arsenic Blending Pipeline project for Elsinore Valley Municipal Water District. Michael Baker designed 20-inch ductile iron pipe to convey low arsenic well water from the Summerly and Diamond Wells to blend with the high arsenic well water from the Cereal #1 and Corydon Wells. The project design included constructability analyses, corrosion, topographic mapping, field surveys, and hydraulic review of the mixing system. Key issues included construction of facilities in an existing environment, evaluating alternative pipeline alignments, and pipeline constructability. Extensive potholing was provided to map existing utilities in the area. The construction costs came in \$30,000 under the projected budget.

1467 Zone Pipeline, Phase III & Phase IV. *Elsinore Valley Municipal Water District.* Technician. Responsible for CADD mapping.

Pipe & PRV Design. K. Hovnanian Companies of California. Technician. Responsible for CADD mapping.



Patrick Hanify, PE, QSD/QSP, CCM, T2, D2, LEED AP | Construction Manager

Mr. Hanify has over 14 years of experience responsible for contract administration, construction management, resident engineering and inspection of numerous public works and capital improvement projects throughout southern California. Other responsibilities have included value engineering, constructability reviews, specification development, bidding services, preconstruction services, claims analysis, utility coordination, quality control and assurance, and construction safety. Patrick's skill in managing critical issues of cost, time, and quality, coupled with his knowledge of construction, standards, and regulations ensures all projects are completed to the full satisfaction of the Client. His degree in civil engineering coupled with his design experience in public works, water resources and land development projects, provide him with a solid foundation for Construction Management and Inspection work.

Experience

Michael Baker

Construction Management and Inspection for Zone 2 Waterline and Service Relocation in the Bloomington Area, Phase IIIA, Bloomington, California. *West Valley Water District.* Project Manager / Construction Manager. Michael Baker is providing construction management, construction monitoring, and contract administration services for this \$1.5 million project involving the installation of new 8" mainline, abandonment of existing services and mainline, and relocation of existing service laterals to serve Zone 2, in the Bloomington Area, as part of Phase IIIA. Work consisted of the installation of 5,601 LF of CML&C waterline, 141 relocated service laterals, 14 new Fire Hydrant assemblies, and repaving operations along 10th Street & 11th Street, between Linden Ave. and Locust Ave., and along Maple Ave. Michael

Years with Michael Baker: 14 Years with Other Firms: 0

Degrees

B.S., 2007, Civil Engineering, Geospatial Option, California State Polytechnic University, Pomona

Licenses/Certifications

Grade II Water Distribution Operator (D2), California, 2018, 49529

Grade II Water Treatment Operator (T2), California, 2011, 32145

LEED Accredited Professional, 2009

Professional Engineer - Civil, California, 2012, 79874

Certified Inspector of Sediment & Erosion Control, California, 2012, 0789

Qualified SWPPP Practitioner (QSP), California, 2011, 20942

Certified Construction Manager, 2018, 8612

Baker is integrally involved in verifying quantities and ensuring quality control; providing community relations and monitoring site safety; coordinating survey; conducting bi-weekly progress meetings and preparing minutes; monitoring project schedules; and preparing and processing control documents.

Reservoir 2-3 Site Improvements, Access Road & Storm Drain, Fontana, California. *West Valley Water District.* Project Manager / Construction Manager. Michael Baker provided construction management and inspection services for site improvements to control erosion and to provide effective site drainage. Improvements included a new access road, storm drain piping, and energy dissipation measures. Michael Baker also provided contract administration, scheduling, requests for information (RFI) submittals, inspection reports, digital photos, progress payments, traffic control, site safety, community relations, and the final punch list.

Golden State Water Company, Various Design/Build Capital Improvement Pipeline Projects, Los Angeles County, California. Provided construction management services for the construction of this \$6.2M project that encompassed nine different designbuild water main replacement projects throughout Los Angeles County. The construction of these pipelines included 19,000 If of 8 in Main line, 4000If of 12in main, 570 water services, 50 fire hydrants, and 80 Valves. Duties include conducting preconstruction meeting, conducting weekly project meetings, assist in monthly progress payments and recommendations, RFI coordination, and evaluate change orders and recommendations to the client. Michael Baker's duties included project and construction management, inspection, coordinating with the Design/Build Contractor who will obtain construction permits from the local agency and comply with the permit conditions, coordination with the Operations department to complete the field check review, shutdowns and final job walks, and coordinating the Design/Build Contractor works with the other GSWC departments including the design review and approval by GSWC and signature by the EDC project manager.

Illinois Street Pipeline Construction Management, Lake Elsinore, California. Elsinore Valley Municipal Water District. Project Manager/Construction Manager. Responsible for billing and invoicing, client and subcontractor coordination, conducting project meetings, change order negotiations/recommendations, construction observation and inspection, submittal, construction schedule, and RFI review. Michael Baker provided construction management for the Illinois Street Pipeline Project, which consists of replacing



the 4-inch pipeline with a new 8-inch PVC pipeline in Illinois Street along with over 5,000 linear feet of additional sections. The project included a road crossing that was accomplished by jacking and boring a 16-inch steel casing under the road, 25 replacement water services, 4 new Fire Hydrant assemblies, 3 new blow-off assemblies, 6 new air-vac and repaving operations along. This work required coordination with Cal Trans and the City of Lake Elsinore.

Water Canyon Main Replacement Phase 1 Project, City of Banning. Michael Baker International was retained by the City of Banning, to provide Construction Management for the Water Canyon Main Replacement Project to replace aged pipelines. The City separately purchased the pipe to be installed during construction. This project included installation of over 7,000lf of Ductile Iron pipelines, along with installation of valves, fittings, and appurtenances, connections to existing waterlines and abandonment of the existing waterline in place. Flushing, pressure testing. Disinfection and Bac-T testing of waterline was required. Mr. Hanify worked as the Construction Manager for the Water Canyon Project that included conducting weekly project meetings, review and processing submittals and RFI's, construction observation, monthly progress payment recommendations, evaluate change orders and submit recommendations to the City, preparation of project records and close-out documents, schedule review, coordinate meeting minutes, process job control documents.

Hillwood - Raub 4-R & Raub 5-R Well Replacement Project, San Bernardino, California. Michael Baker provided Construction Management for the Well Replacement project that included the drilling, equipping and testing of the two ground water extraction wells Raub 4-R & 5-R. Work included Installation of discharge and pump-to-waste pipelines for Raub 4-R, Raub 5-R, and existing Raub 7, well pre-lube systems, abandonment of 3 wells and Demo of two 2 wells. Constructed approximately 4,400 linear feet of 12", 20" and 24" DIP pipelines, approximately 1,300 linear feet of 20" CML&CMC bypass line, conduits and equipment which are to handle or carry raw water to a nearby treatment facility. Mr. Hanify worked as the Construction Manager on this project that included conducting Project meetings, review submittals & RFI's, construction observation, monthly progress payment recommendations, evaluate change orders and submit recommendations to Hillwood, preparation of project records and close-out documents, schedule review, prepare, and distribute minutes to designees, process job control documents.

Chino Basin Desalter Authority Phase 3 Expansion, Inland Empire, California. Assistant Program Manager. Mr. Hanify recently completed Assistant Program Management services for the Chino Desalter Authority (CDA) Phase 3 Expansion Project. As Assistant Program Manager his responsibilities included Monthly report preparation, attending twice-a-month sponsor group meetings, constructability reviews, assistance with property acquisition, project bidding assistance, attending construction progress meetings, and project closeout assistance. This Expansion included 14 separate contracts and work within 2 Counites, 5 different Cities, and work within Caltrans ROW.

Euclid Avenue Median Irrigation Pump Station Recycled Water Improvements, Ontario, California | 07/2015 to 11/2018, \$1.6M. Project Manager / Inspector. Michael Baker provided inspection services for the first project City's new backbone recycled water distribution system. The system includes Construction within Caltrans ROW and included review and inspection of Caltrans approved Traffic Control and Detour Plans.

Construction Management and Inspection Services - White Avenue Street Rehabilitation Project, California. City of Pomona. Assistant Construction Manager.

Construction Inspection Services, Omnitrans E Street Corridor sbX Project, San Bernardino, California. City of San Bernardino, Project Manager and Inspector.

Construction Management Services – Cajon Blvd Street Improvements, San Bernardino, California. City of San Bernardino. Assistant Construction Manager.



Aaron Singer, EIT, OSHA 30 | Assistant Construction Manager, Field Engineer, Inspector

Mr. Singer has been inspecting project and assisting with project management for Michael Baker Construction Management Department. His responsibilities include support with processing and in reviewing RFI's, CCO's, RFQ's, shop drawings and submittals. His work outside of Michael Baker providing design and field support in the commercial construction, transportation, and land development sectors has prepared him with a solid foundation for Construction Management and Inspection work.

Experience

Construction Management and Inspection for Zone 2 Waterline and Service Relocation in the Bloomington Area, Phase IIIA. *West Valley Water*

District. Assistant Construction Manager/ Field Engineer. Michael Baker provided construction management, construction monitoring, and contract administration services for this \$1.5 million project involving the installation of new 8" mainline, abandonment of existing services and mainline, and relocation of existing service laterals to serve Zone 2, in the Bloomington Area, as part of Phase IIIA. Work consisted of the installation of 5,601 LF of CML&C waterline, 141 relocated service laterals, 14 new Fire Hydrant assemblies, and repaving operations along 10th Street & 11th Street, between Linden Ave. and Locust Ave., and along Maple Ave. Michael Baker is integrally involved in verifying quantities and ensuring quality control; providing community relations and monitoring site safety; coordinating survey; conducting bi-weekly progress meetings and preparing minutes; monitoring project schedules; and preparing and processing control documents.

Reservoir 2-3 Site Improvements. *West Valley Water District.* Assistant Construction Manager/ Primary Construction Inspector. Michael Baker provided construction management and inspection services to West Valley Water District to manage site improvements for a reservoir. The work consisted of removal of an existing hillside spillway and replacement with a new 24" RCP line, Junction box, and dissipator, new AC access road, cut-off wall, curb and gutter, and site fencing.

CM & Insp Services for Culver Boulevard Realignment Project & Stormwater Filtration and Retention Project. *City of Culver City.* Construction Inspector. Responsible for fulltime construction Inspection and field scheduling support for Client. Michael Baker provided Construction Inspection Services to the City of Culver City, for a two-part project to realign a major through street and parkway, with concurrent installation of a large scale stormwater filtration and retention system designed to capture and treat no less than 8 AC-ft of stormwater. Inspection responsibilities additionally included labor compliance and tracking of onsite crews, coordination of Native American and paleontological monitoring, and public engagement on the behalf of the City for construction activities with impacts to the surrounding neighborhood and businesses.

9001 Santa Monica Boulevard Development. *City of West Hollywood.* Construction Inspector. Responsible for Construction Inspections for required ROW improvements. Michael Baker provided On-Call Construction Inspection Services to the City of West Hollywood, for a private commercial development. Construction activities included the installation of (3) Sewer Laterals, 18" Storm Drain Pipeline and associated structures, and other public ROW improvements densely visited San Monica Boulevard.

On-Call Plan Check and Inspection Services, *San Bernardino Municipal Water Department.* Construction Inspector/Assistant Construction Manager. Responsible for Construction Inspection and Inspection Scheduling Support. Michael Baker provided On-Call Construction Inspection Services to the City of San Bernardino Municipal Water Department for Gateway South Building 5, a private commercial development, and Arrowhead Grove, another private development. Construction activities included the installation of a 12" DIP water line and commercial water services along with new sewer pipe main line, laterals, and structures.

Years with Michael Baker: 1 Years with Other Firms: 3

Degrees

B.S.C.E., 2016, Civil Engineering, California Baptist University

Licenses/Certifications

Engineer-In-Training, California, 2015, 156752



3.4.d

John Martin | Inspector - Alternate

Mr. Martin brings 40 years of experience in the construction and inspection of water, recycled water, sewer and public works projects. His career has progressed steadily from maintenance worker, field supervisor, treatment plant operator, district inspector, construction observer and construction inspector. His experience covers a wide array of projects.

Experience

City of Torrance, California. 3,000 feet of 12-inch DIP plus jack and bore under storm drain, 1,000 feet of 8-inch DIP, 40 new water services, 6 new fire hydrants, pressure testing and chlorinating of new water main.

Years with Michael Baker: 1 Years with Other Firms: 40

Training

Water Distribution and Water Treatment, Santiago Community College

OSHA 10-hr Training for Construction

T-lock Welding (Ameron) SWPPP Training, Confined space training

Long Beach Water Department, Long Beach, California. 1,000 feet of new 12-inch DIP water main, 12 new water services, 8 water laterals. Long Beach Boulevard Cherry Avenue: 6,000 feet of 12-inch TR Flex ductile iron water main, 20 tie-in laterals, 25 6-inch fire hydrants laterals plus gate valves, 25 12-inch gate valves, concrete replacement of Long Beach Boulevard and cold planning of Cherry Avenue with asphalt cap. 2,000 feet of 24-inch CMLCC.

Contract No. 3-52, Westside Pump Station. Construction Cost: \$6.5 Million. This project rehabilitated the existing Westside Pump Station and increased the station's capacity to meet current and projected peak wet-weather flows. The project consisted of construction of a separate access stairwell to the lower section of the pumping station, replacement of the pumps and controls, and modification of ventilation systems.

Contract No. 2-24-1, Carbon Canyon Dam Sewer and Pump Station Abandonment. Construction Cost: \$5.4 Million. This project included construction of 4,970 feet of 24-inch to 42-inch VCP and Fiberglass sewer pipelines using conventional open-cut construction and micro tunneling technologies; demolition of the existing pump station, abandonment of the existing sewer and force mains, and completion of additional earthwork. This project involved coordination with several project stakeholders (County of Orange Public Works, State Parks, California Department of Fish and Game, U.S. Army Corps of Engineers, Aera Energy, and other private local businesses). At the beginning of the project, he inspected the excavation of the launching and receiving pit along with the Beam and Plate shoring at the launching pit. The launching pit was 50 foot deep by 30 foot wide. He worked closely with the operator of MTBM taking reports daily on the length of the run and any elevation changes.

Contract No. 7-36, 7-39, 7-41 Gisler-Redhill Trunk Sewer Construction, City of Tustin, California. Construction Cost: \$27 Million. Actively involved in resolving construction issues, processing change orders and coordination with project stakeholders. This project included construction of approx. 38,170 feet of 27-inch to 12-inch Vitrified Clay Pipe, 15- to 25-ft deep, within the City of Tustin and Unincorporated Areas of the County of Orange.

Contract 7-21, Sunflower Interceptor Manhole Rehabilitation, City of Costa Mesa, California. *County of Orange.* The project also included construction of two jacked steel casings (jack and bore) under local storm drain channels.



Robert "Butch" Samarzich | Inspector - Alternate

Mr. Samarzich has more than 37 years of experience on a wide variety of construction projects in both the public and private sector. He has an exceptional background in project management and field operations and has been responsible for site construction, including ensuring compliance with plans and specifications, coordinating subcontractors, and confirming all materials are in conformance with the project specifications and approved submittals. He has traveled throughout the

Years with Michael Baker: 2 Years with Other Firms: 35 Training Safety Training

United States working on numerous construction projects, supervising employees and ensuring successful project delivery. His experience encompasses grading for site development, water and sewer pipelines, coordinating with all public works stakeholders, and timely progress reporting. Mr. Samarzich's typical duties include performing construction inspection, administering contract documents; upholding code requirements; attending weekly progress meetings; coordinating with agencies, designers, utility companies, material testers, and surveyors; verifying quantities and quality assurance; monitoring the Contractor's construction schedule, permit compliance, traffic control plan, and safety plan; and maintaining public relations.

Experience

Gerald Desmond Bridge Replacement Project, S. Pico Avenue 20", 24", & 30" Water Transmission Main 300J, Long Beach, California. Construction Inspector. As part of our on-call services agreement, Michael Baker was selected by the LBWD to provide construction inspection services for this pipeline relocation project necessitated by the construction of the New Gerald Desmond Bridge in Long Beach. The work involved 100 LF of 24", 282 LF of 20", and 22 LF of 30" CML&C steel pipeline, butterfly valves, buttstraps, connections, blow-off's, and night work. Michael Baker's duties encompassed: providing construction inspection and contract administration; verifying quantities and ensuring quality control; monitoring the Contractor's safety plan; observing water knife potholing, pressure testing, chlorination, flushing, and Bac-T testing; and preparing daily construction reports, digital photos, and the punch list.

Eaton Kiowa Waalew Pump Station and Reservoirs. Construction Inspector. Michael Baker provided construction management and inspection services to the Golden State Water Company.

Well Automation and Rehabilitation Project No. MC 2101, Costa Mesa, California. Construction Inspector. Michael Baker provided construction management and inspection services to the Mesa Water District for this \$10,488,500 comprehensive upgrade of all 5 of the District's clear water wells. The work included well rehabilitation and cleaning; SCADA upgrades, chemical system replacement; Arc Flash & electrical safety survey implementation; ozone treatment system and UV tower abandonment; and electrical, mechanical, structural, maintenance, and security upgrades.

On-Call Plan Check and Inspection Services, San Bernardino, California. *San Bernardino Municipal Water Department*. Construction Inspector. Responsible for Construction Inspection. Michael Baker provided On-Call Construction Inspection Services to the City of San Bernardino Municipal Water Department for Gateway South Building 5, a private commercial development, and Arrowhead Grove, another private development. Construction activities included the installation of a 12" DIP water line and commercial water services along with new sewer pipe main line, laterals, and structures.

EXHIBIT "2"

то

TASK ORDER NO. 1

COMPENSATION

The fee estimated for Development of Construction Bid Documents for Water Main Replacement, Construction Management, and Inspection Services is **\$355,884.00**.

TASK	DESCRIPTION	COST				
Task 1 - Development of Cons	truction Bid Documents					
	WVWD Coordination and Document					
	Review					
	Surveying	\$660.00				
	Conduct Existing Utility Research	\$3,140.00				
	Geotechnical Services	\$1,560.00				
	Potholing (5 holes)	\$12,770.00				
	Permits	\$6,000.00				
	Preliminary Design	\$20,200.00				
	Prepare P, S, and E - Phase 1	\$50,040.00				
	(Druge Widening)	¢46,000,00				
	Street Improvemente	\$40,920.00				
	Construction Schedule and Cost	¢9 260 00				
	Opinion	φο,300.00				
	Meetings	\$17,600.00				
	Coordination of Deliverables	\$3,500.00				
	Construction Bid Services	\$7,610.00				
	Subtotal	\$184,120.00				
Task 2 - Construction Manager	nent					
	Schedules	\$ 534.00				
	Meetings (14 Meetings Total)	\$ 8,250.00				
	Liason	\$ 4,272.00				
	Shop Drawings and RFI's (15 Submittals and 10 RFI's)	\$ 8,610.00				
	Review of Work	\$ 4 347 00				
	Interpretation of Documents	\$ 2 848 00				
	Modifications (Assumes 3	\$ 1 068 00				
	Modification Requests)	+ 1,000100				
	Records	\$ 1,628.00				
	Reports					
	As-Builts					
	Payment Reviews	\$ 1,704.00				

	O&M's	\$ 992.00					
	Completion	\$ 4,297.00					
	\$41,984.00						
Task 3 - Inspection							
	Full time observation (130 days)	\$ 101,975.00					
	Measurements and Logs	\$ 690.00					
	Schedules and Meetings (14	\$ 2,300.00					
	Meetings Total)						
	Shop Drawings	\$ 230.00					
	Review of Inspections and Tests	\$ 2,300.00					
	Interpretation of Documents	\$ 690.00					
	Modifications	\$ 690.00					
	Records	\$ 690.00					
	Reports	\$7,475.00					
	As-Builts	\$ 690.00					
	Payment Reviews	\$ 690.00					
	O&M's	\$920.00					
	Completion	\$2,760.00					
	Subtotal	\$122,100.00					
Task 4 - Construction Staking							
	12" Water Line Stakes	\$ 4,560.00					
	8" Water Line Stakes	\$ 3,120.00					
	Subtotal	\$7,680.00					
	Total Cost	\$355,884.00					

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EXHIBIT "3"

TO TASK ORDER NO. 1

SCHEDULE

The tentative design schedule for Development of Construction Bid Documents for Water Main Replacement is shown below. The Construction Management and Inspection Services is to be determined by District staff.

No.	Task Name	Duration	Start	Finish	1st Quarter 2nd Quarter
					Dec Jan Feb Mar Apr May
1	Notice to Proceed and Kick-Off Meeting	1 day	Wed 12/2/20	Wed 12/2/20	12/2
2	Prepare 30% Conceptual Design	24 days	Thu 12/3/20	Thu 1/7/21	1/7
3	Utility Coordiantion	28 days	Thu 12/3/20	Wed 1/13/21	1/13
4	30% Conceptual Design Submittal	0 days	Thu 1/7/21	Thu 1/7/21	₹1 /7
5	30% Review Period	5 days	Fri 1/8/21	Thu 1/14/21	1/8 🏊 1/14
6	30% Design Meeting (Comments Due)	0 days	Thu 1/14/21	Thu 1/14/21	• 1/14
7	Prepare 60% Stage 1 Design	14 days	Fri 1/15/21	Thu 2/4/21	1/15 2/4
8	Prepare 60% Stage 2 Design	20 days	Fri 1/15/21	Fri 2/12/21	1/15 2/12
9	60% Stage 1 Design Submittal	0 days	Thu 2/4/21	Thu 2/4/21	₹2 /4
10	60% Stage 2 Design Submittal	0 days	Fri 2/12/21	Fri 2/12/21	₹2/12
11	60% Stage 1 Review Period	5 days	Fri 2/5/21	Thu 2/11/21	2/5 📥 2/11
12	60% Stage 2 Review Period	4 days	Mon 2/15/21	Thu 2/18/21	2/15 12/18
13	UPRR Submittal Package	45 days	Mon 2/15/21	Fri 4/16/21	2/15 4/16
14	60% Stage 1 Comments Due	0 days	Thu 2/11/21	Thu 2/11/21	× ² /11
15	60% Stage 2 Comments Due	0 days	Thu 2/18/21	Thu 2/18/21	₹2/18
16	Prepare 90% Stage 1 Design	15 days	Fri 2/12/21	Thu 3/4/21	2/12 3/4
17	Prepare 90% Stage 2 Design	26 days	Fri 2/19/21	Fri 3/26/21	2/19 3/26
18	90% Stage 1 Design Submittal	0 days	Thu 3/4/21	Thu 3/4/21	₹3/4
19	90% Stage 2 Deisgn Submittal	0 days	Fri 3/26/21	Fri 3/26/21	₹3/26
20	90% Stage 1 Review Period	10 days	Fri 3/5/21	Thu 3/18/21	3/5 🎽 3/18
21	90% Stage 2 Review Period	9 days	Mon 3/29/21	Thu 4/8/21	3/29 📥 4/8
22	90% Stage 1 Comments Due	0 days	Thu 3/18/21	Thu 3/18/21	₹3/18
23	90% Stage 2 Comments Due	0 days	Thu 4/8/21	Thu 4/8/21	4/8
24	Prepare 100% Stage 1 Design	10 days	Fri 3/19/21	Thu 4/1/21	3/19 📥 4/1
25	Prepare 100% Stage 2 Design	10 days	Fri 4/9/21	Thu 4/22/21	4/9 📥 4/22
26	100% Stage 1 Submittal	0 days	Thu 4/1/21	Thu 4/1/21	₹4/1
27	100% Stage 2 Submittal	0 days	Thu 4/22/21	Thu 4/22/21	* 4/22



BOARD OF DIRECTORS ENGINEERING, OPERATIONS AND PLANNING COMMITTEE STAFF REPORT

DATE:	October 14, 2020
TO:	Engineering, Operations and Planning Committee
FROM:	Clarence C. Mansell Jr., General Manager
SUBJECT:	CONSIDER A NON-INTERFERENCE LETTER FOR PARCEL MAP 19945

DISCUSSION:

On September 14, 2020, ATC Design Group, ("Applicant") contacted the West Valley Water District ("District") regarding an overlying blanket easement within their proposed project area known as Parcel Map 19945 in the City of Rialto. The Applicant requested that the District draft a Non-Interference Letter specific to the subject property stating that the District did not have any intention to expand its existing facilities into the project area, and that any surrounding easements would not interfere with the proposed project. In review of the Applicant's request, the District did not identify any conflicting facilities within the Applicant's proposed project area, nor was this proposed location identified as part of the District's long term supply operations.

A figure depicting the location of the proposed project area is attached as Exhibit A. Attached for review and approval is a copy of the Non-Interference Letter labeled Exhibit B.

FISCAL IMPACT:

In accordance with West Valley Water District's Rules and Regulations Article 20, section 2019, the applicant will be charged \$50.00 per acre or any portion thereof with a minimum fee of \$500.00 for the review and processing of documents related to right-of-way and easement release.

STAFF RECOMMENDATION:

It is recommended that the Engineering, Operations and Planning Committee approve the issuance of the Non-Interference Letter for Parcel Map 19945, and have this item considered by the full Board of Directors at a future meeting.

Respectfully Submitted,

Clarence C. Mansell

Clarence C. Mansell Jr, General Manager

DG:mm

ATTACHMENT(S):

- 1. Exhibit A Aerial Map
- 2. Exhibit B Non-Interference Letter

EXHIBIT A



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3.5.a

EXHIBIT B

BOARD OF DIRECTORS

Channing Hawkins President, Board of Directors Kyle Crowther Vice President, Board of Directors Dr. Michael Taylor Director Dr. Clifford O. Young, Sr. Director Greg Young Director



Established as a public agency in 1952 West Valley Water District's mission is to provide a reliable, safe-drinking water supply to meet our customers' present and future needs at a reasonable cost and to promote water-use efficiency and conservation. 3.5.b Administrative Staff

Clarence C. Mansell, Jr. General Manager

Shamindra K. Manbahal Chief Financial Officer Peggy Asche Acting Board Secretary

October 14, 2020

City of Rialto Public Works Department 150 S. Palm Ave Rialto, CA 92376

Subject: Non-Interference Letter for Parcel Map No. 19945 (PPD 2017-0050)

Please be advised that the division of the property shown on Tentative Parcel Map No. 19945, will not unreasonably interfere with the free and complete exercise of any easements and/or facilities held by West Valley Water District ("District") within the boundaries of said map.

The letter should not be construed as a subordination of the District's rights, title and interest in and to said easement(s), nor should this letter be construed as a waiver of any of the provisions contained in said easement(s) or waiver of costs for relocation of any affected facilities.

In the event that the development requires relocation of facilities, on the subject property, which facilities exist by right of easement or otherwise, the owner/developer will be requested to bear the cost of such relocation and provide the District with suitable replacement rights. Such costs and replacement rights are required prior to the performance of the relocation.

If you have any questions or need additional information in connection with the subject subdivision, please contact me 909-875-1322.

Sincerely,

Linda Jadeski Engineering Services Manager West Valley Water District

FAX (909) 875-7284 Administration FAX (909) 875-1361 Engineering FAX (909) 875-1849 Customer Service

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BOARD OF DIRECTORS ENGINEERING, OPERATIONS AND PLANNING COMMITTEE STAFF REPORT

DATE:	October 14, 2020
TO:	Engineering, Operations and Planning Committee
FROM:	Clarence C. Mansell Jr., General Manager
SUBJECT:	CONSIDER RELEASE OF OVERLYING EASEMENT WITHIN LOT 126 OF TRACT 20018

DISCUSSION:

Attached for review is a proposed Quitclaim Deed to release a portion of overlying easement totaling 419-sqft of land within Lot 126 of Tract 20018, located on the south side of Kings Peak Drive, in the City of Fontana, to Fontana 37, LLC ("Applicant").

The subject parcel is part of a master planned community and currently has an existing 20-foot utility easement which terminates within the lot. The Applicant is requesting that the District quitclaim an excess portion of the 20-foot utility easement to allow for the construction of a block wall. Staff has reviewed the Applicant's request, and did not identify any conflicting facilities within the proposed quitclaim area, nor will the release of the excess easement impact the District's ongoing operation of its existing infrastructure.

A figure depicting the location of the overlying easement area is attached as Exhibit A. Attached for review and approval is a copy of the Quitclaim Deed labeled Exhibit B.

FISCAL IMPACT:

In accordance with West Valley Water District's Rules and Regulations Article 20, section 2019, the applicant will be charged \$50.00 per acre or any portion thereof with a minimum fee of \$500.00 for the review and processing of documents related to right-of-way and easement release.

STAFF RECOMMENDATION:

It is recommended that the Engineering, Operations and Planning Committee authorize the release of the overlying easement within Lot 126 of Tract 20018, and have this item considered by the full Board of Directors at a future meeting.

Clarence C. Manselly

Clarence C. Mansell Jr, General Manager

DG:mm

ATTACHMENT(S):

- 1. Exhibit A Aerial Map
- 2. Exhibit B Quitclaim Deed

EXHIBIT A



3.6.a

EXHIBIT B

When recorded mail to:
(SPACE ABOVE THE LINE FOR RECORDER'S OFFICE USE ONLY)
Project: A.P.N.
QUITCLAIM DEED
FOR VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, West Valley Water
District, a county water district, does hereby remise, release and forever quitclaim to Fontana 37, LLC, a
California limited liability company, all right, title and interest in a portion of that certain easement deed
recorded May 11, 2005 as instrument No. 2005-0335826, Official Records of San Bernardino County,
California, all within lot 126 of Tract Map No. 20018, as per map recorded in Book, Pages
through of maps, and recorded on, 2020 of Official Records of San Bernardino
County, California, ONLY AS TO THAT CERTAIN REAL PROPERTY described in Exhibit "A" and

depicted in Exhibit "B" attached hereto and incorporated herein by this reference.

Dated ______, 2020

WEST VALLEY WATER DISTRICT, a county water district

By______ Clarence Mansell Jr., General Manager

By_____ Peggy Asche, Board Secretary

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA))))ssCOUNTY OF SAN BERNARDINO)

On _______ before me, ________. a Notary Public, personally appeared ________, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal. (Seal)

STATE OF CALIFORNIA)) ss COUNTY OF SAN BERNARDINO)

On ________ before me, ________. a Notary Public, personally appeared ________, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

(Seal)

EXHIBIT A

EXHIBIT "A"

(QUITCLAIM)

THE FOLLOWING DESCRIBED REAL PROPERTY IS SITUATED IN THE CITY OF FONTANA, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, BEING A PORTION OF THAT CERTAIN EASEMENT DEED, RECORDED MAY 11, 2005 AS INSTRUMENT NO. 2005-0335826 OFFICIAL RECORDS OF SAID COUNTY, ALL WITHIN LOT 126 OF TRACT MAP No. 20018, AS PER MAP RECORDED IN BOOK ______ PAGES _____ THROUGH _____ OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, BEING MORE DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID LOT 126;

THENCE, ALONG THE SOUTH LINE OF SAID LOT 126, NORTH 89°38'08" EAST 15.57 FEET TO THE SOUTHWEST CORNER OF SAID INSTRUMENT NO. 2005-0335826, SAID CORNER BEING THE **POINT OF BEGINNING**;

THENCE, LEAVING SAID SOUTH LINE AND ALONG THE WEST LINE OF SAID INSTRUMENT No. 2005-0335826, NORTH 00°21′52″ WEST 20.00 FEET TO THE NORTHWEST CORNER THEREOF;

THENCE, LEAVING SAID WEST LINE AND ALONG THE NORTH LINE THEREOF, NORTH 89°38'08" EAST 29.70 FEET;

THENCE, LEAVING SAID NORTH LINE, SOUTH 40°47′05″ WEST 26.56 FEET TO A POINT ON THE SOUTH LINE OF SAID INSTRUMENT No. 2005-0335826, SAID POINT ALSO BEING A POINT ON THE SOUTH LINE OF SAID LOT 126;

THENCE, ALONG SAID SOUTH LINE, SOUTH 89°38'08" WEST 12.23 FEET TO THE **POINT OF BEGINNING**.

CONTAINS 419 SQUARE FEET, MORE OR LESS.

THE ABOVE DESCRIBED REAL PROPERTY IS SHOWN ON THE MAP ATTACHED HEREWITH AND MADE A PART HEREOF, ENTITLED EXHIBIT "B".

PREPARED BY MADOLE & ASSOCIATES, INC.

ANTHONY HARO, PLS 7635 DATE EXP. 12/31/2020 J.N. 126-2596

EXHIBIT B



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BOARD OF DIRECTORS ENGINEERING, OPERATIONS AND PLANNING COMMITTEE STAFF REPORT

DATE:	October 14, 2020
TO:	Engineering, Operations and Planning Committee
FROM:	Clarence C. Mansell Jr., General Manager
SUBJECT:	PROPERTY APPRAISAL FOR FUTURE ZONE 6 RESERVOIR SITE

DISCUSSION:

Development in West Valley Water District's ("District") service area is increasing and occupying vast areas of previously undeveloped land and vacant infill parcels. As this land develops, it leaves fewer spaces for the District to expand future facilities such as wells, reservoirs and pump stations. Some of these facilities need to be located within certain pressure zones, overlying particular groundwater basins or at specific elevations. Future reservoirs need to be constructed at the same elevation as existing reservoirs, in the same pressure zone, to allow the water to evenly float between them.

Along Lytle Creek Road in northern Fontana is a parcel of land owned by the Crawford Canyon Mutual Water Company. The property is vacant and at an elevation suitable for the construction of a future Zone 6 reservoir. Although the District has no current plans to construct a new Zone 6 reservoir, it may be advantageous for the District to own this property to facilitate the construction in the future.

The District has contacted the Crawford Canyon Mutual Water Company to see if they would consider selling this property. They are open to having an appraiser evaluate the property to determine the current market value of the property. The appraisal will provide the District information related to the possible purchase.

The District's Procurement Policies and Procedures outlines who may approve and sign contracts and agreements based on the purchase amount. The District solicited proposals for appraisal services. Attached, as Exhibit A is the appraisal service proposal received from Steven R. Fontes in the amount of \$4,000.00. This service approval level falls within the authorization level of the Department Manager.

FISCAL IMPACT:

The cost to perform the appraisal of APN 0239-081-01 as outlined in the proposal from Steven R. Fontes is \$4,000.00. This service will be funded from the Engineering Department Budget (Professional Services/Other Consultants).

STAFF RECOMMENDATION:

It is recommended that the Engineering, Operations and Planning Committee approve moving forward with Steven R. Fontes for appraisal services for Assessor's Parcel Number 0239-081-01.

Respectfully Submitted,

Clarence C. Manselly

Clarence C. Mansell Jr, General Manager

LJ:mm

ATTACHMENT(S):

1. Exhibit A - Appraisal Proposal - Crawford Canyon Property

EXHIBIT A

AGREEMENT FOR PROFESSIONAL VALUATION SERVICES

SERVICE TYPE	Appraisal Assignment
DATE OF AGREEMENT	September 30, 2020

PARTIES TO AGREEMENT

Client Client Company Address City, State, Zip Office Direct	Angela Navarro West Valley Water District 855 W. Baseline Rialto, CA 92377 (909) 875-1804 ext. 331
Cell	(909) 644-1069
Email	angela@wvwd.org
Appraiser	Steven R. Fontes, MAI, CCIM
Appraiser Company	Mission Property Advisors, Inc.
Address	231 E. Alessandro Boulevard #616
City, State, Zip	Riverside, CA 92508
Phone	(951) 656-1100 ext. 1
Mobile	(951) 640-5616
eFax	(951) 848-9300
E-mail	Steven@MissionPropertyAdvisors.com

Client hereby engages Appraiser to complete an appraisal assignment as follows:

SUBJECT PROPERTY IDENTIFICATION

No address Fontana, CA 92336 San Bernardino County Assessor Parcel Number 0239-081-01

PROPERTY TYPE

The subject property is a vacant land parcel with a non-usable water tank in place.

INTEREST TO BE VALUED

Fee Simple

INTENDED USERS¹

Client

1

¹ No other users are intended by the Appraiser. The Appraiser will consider the intended users when determining the level of detail to be provided in the Appraisal Report.

INTENDED USE

The client will reportedly use the report to assist in a potential purchase.

TYPE OF VALUE

Market Value

DATE OF VALUE

Current

The term **Hypothetical Condition**² is defined as:

A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.

None

The term **Extraordinary Assumption³** is defined as:

An assignment-specific assumption as of the effective date regarding uncertain information used in an analysis which, if found to be false, could alter the appraiser's opinions or conclusions.

The cost to remove the water tank will not be factored into the appraisal report because it is not known if it will be accomplished by the buyer or the seller. The land will be appraised assuming the site was vacant land, including the land underneath the existing water tank.

The subject will be appraised assuming it is not impacted by any hazardous materials or conditions. The appraiser is not qualified or trained to detect such substances, materials, or conditions, nor is the appraiser contracting to provide this service.

The use of Hypothetical Conditions and/or Extraordinary Assumptions may affect assignment results.

² The Appraisal Foundation, *Uniform Standards of Professional Appraisal Practice*, 2020-2021 Edition (Washington, DC: The Appraisal Foundation, 2020).

³ The Appraisal Foundation, *Uniform Standards of Professional Appraisal Practice*, 2020-2021 Edition (Washington, DC: The Appraisal Foundation, 2020).

APPLICABLE REQUIREMENTS

The Code of Professional Ethics of the Appraisal Institute and the Uniform Standards of Professional Appraisal Practice (USPAP) of © The Appraisal Foundation.

ANTICIPATED SCOPE OF WORK

Site Visit

The appraiser will conduct a site visit.

Valuation Approaches

Appraiser will use all applicable approaches necessary to develop a credible opinion of value.

APPRAISAL REPORT

Report Option and Format

A narrative Appraisal Report will be provided.

CONTACT FOR PROPERTY ACCESS, IF APPLICABLE

Client

DELIVERY DATE

An appraisal report will be delivered within 30 days from the date a signed contract is received.

REPORT COPIES

A PDF copy will be provided via email.

PAYMENT TO APPRAISER

\$4,000.

Please make check payable to Mission Property Advisors, Inc.

PAYMENT DUE DATE

Appraiser shall invoice Client for services rendered pursuant to this Agreement based upon the fees specified in this Agreement. Appraiser's invoices are considered due upon receipt by Client and shall be deemed delinquent if not paid within 30 days of the date of Appraiser's invoice. Client shall be assessed a late charge of 10% of the unpaid balance per month until paid in full. Additional late charges shall be assessed each additional month thereafter that an invoice remains unpaid in

3

whole or in part. In the event Appraiser pursues collection efforts to recover unpaid balances owed by Client. Client shall pay Appraiser's costs of collection, including attorneys' fees at trial or on appeal.

OWNERSHIP OF WORK PRODUCT

The possession of the Appraisal Report, or any copy or portion thereof, by Client or any third party does not include or confer any rights of publication or redistribution of the Appraisal Report other than to such persons or entities identified in this Agreement who shall be advised in writing of Appraiser's rights under this Agreement prior to their receipt of the Appraisal Report. All rights, title and interest in (1) any data gathered by Appraiser in the course of preparing the Appraisal Report (excluding any data furnished by or on behalf of Client) and (2) the content of the Appraisal Report prepared pursuant to this Agreement shall be vested in Appraiser. Subject to the foregoing, Client shall have the right to possess a copy of the Appraisal Report and to disclose the report to Client's attorneys, accountants or other professional advisors in the course of Client's business affairs relating to the property that is the object of the Appraisal Report, provided that such attorneys, accountants or advisors are advised in writing of Appraiser's rights under this Agreement prior to receipt of such Appraisal Report.

CLIENT'S REPRESENTATIONS AND WARRANTIES

Client represents and warrants to Appraiser that (1) Client has all right, power and authority to enter into this Agreement; (2) Client's duties and obligations under this Agreement do not conflict with any other duties or obligations assumed by Client under any agreement between Client and any other party; and (3) Client has not engaged Appraiser, nor will Client use Appraiser's appraisal report, for any purposes that violate any federal, state or local law, regulation or ordinance, or common law.

DOCUMENTATION REQUESTED BY APPRAISER, as applicable and/or available

Appraiser will need the following items to complete the appraisal. Appraiser prefers to receive these items in PDF format, but hard copies are acceptable. Appraiser understands that certain items will simply not be available. If that is the case, please advise.

- 1. Title report
- 2. Copies of any listings or offers received within the last 3 years

CONFIDENTIALITY

Appraiser shall not provide a copy of the written Appraisal Report to, or disclose the results of the appraisal prepared in accordance with this Agreement with any party other than Client, unless Client authorizes, except as stipulated in the Confidentiality Section of the ETHICS RULE of the Uniform Standards of Professional Appraisal Practice (USPAP).

CHANGES TO AGREEMENT

Any changes to the assignment as outlined in this Agreement shall necessitate a new Agreement. The identity of Client, intended users, or intended use; the date of value; type of value; or property appraised cannot be changed without a new Agreement.

CANCELLATION

Client may cancel this Agreement at any time prior to Appraiser's delivery of the Appraisal Report upon written notification to Appraiser. Client shall pay Appraiser for work completed on assignment prior to Appraiser's receipt of written cancellation notice, unless otherwise agreed upon by Appraiser and Client in writing. At the point of cancellation, Appraiser will estimate the percentage complete and bill Client accordingly (which will not be less than the retainer amount). Payment must be made to Appraiser within 30 calendar days of Client's receipt of the invoice (either by email or US mail, whichever is earlier).

NO THIRD-PARTY BENEFICIARIES

Nothing in this Agreement shall create a contractual relationship between Appraiser or Client and any third party, or any cause of action in favor of any third party. This Agreement shall not be construed to render any person or entity a third-party beneficiary of this Agreement, including, but not limited to, any third parties identified herein.

USE OF EMPLOYEES OR INDEPENDENT CONTRACTORS

Appraiser may use employees or independent contractors at Appraiser's discretion to complete the assignment, unless otherwise agreed by the parties. Notwithstanding, Appraiser shall sign the written Appraisal Report and take full responsibility for the services provided as a result of this Agreement.

TESTIMONY AT COURT OR OTHER PROCEEDINGS

Appraiser's assignment pursuant to this Agreement shall include Appraiser's participation in or preparation for, whether voluntarily or pursuant to subpoena, any oral or written discovery, sworn testimony in a judicial, arbitration or administrative proceeding, or attendance at any judicial, arbitration, or administrative proceeding relating to this assignment. In the event that Appraiser is subpoenaed to testify as either a percipient witness or an expert witness, Client shall be responsible for payment to Appraiser for testimony time, including preparation and travel to and from the place of testimony. Appraiser's hourly rate for these additional services are \$500 per hour, with a 4-hour minimum per day, plus travel time to and from the venue for deposition(s) and/or trial.

A separate Rate Sheet document will be provided to the client. It is incorporated by reference into this contract. It outlines additional fees that the client will be responsible for should the appraisal be used in a litigation context or should the appraiser be called to testify about the property or the appraisal as an expert witness.

APPRAISER LIABILITY

Appraiser will provide professional valuation services pursuant to the terms and conditions of this contract for the agreed upon fee as noted. Unless Appraiser is found by a court of law to be 1) professionally negligent or 2) to have committed fraud relating to the services outlined in this contract, Appraiser's liability to Client for any *actual* financial loss or *claim* of financial loss arising from Appraiser performing the duties outlined in this contract shall be limited to the total fee collected by Appraiser from Client.

APPRAISER INDEPENDENCE

Appraiser cannot agree to provide a value opinion that is contingent on a predetermined amount. Appraiser cannot guarantee the outcome of the assignment in advance. Appraiser cannot insure that the opinions of value developed as a result of this Assignment will serve to facilitate any specific objective by Client or others or advance any particular cause. Appraiser's opinions of value will be developed competently and with independence, impartiality and objectivity.

EXPIRATION OF AGREEMENT

This Agreement is valid only if signed by both Appraiser and Client within 5 calendar days of the Date of Agreement specified.

SERVICES PERFORMED WITHIN PRIOR THREE YEARS

I have not performed any services regarding the subject property within the prior three (3) years as an Appraiser or in any other capacity.

GOVERNING LAW AND JURISDICTION

The interpretation and enforcement of this Agreement shall be governed by the laws of the State of CA in which Appraiser's principal place of business is located, exclusive of choice of law rules.

By Appraiser:

Steven R. Fontes, MAI, CCIM Printed name

September 30, 2020 Date

By Client:

Dated:



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BOARD OF DIRECTORS ENGINEERING, OPERATIONS AND PLANNING COMMITTEE STAFF REPORT

DATE:October 14, 2020TO:Engineering, Operations and Planning CommitteeFROM:Clarence C. Mansell Jr., General ManagerSUBJECT:CONSIDER TASK ORDER 2 WITH WATER SYSTEMS CONSULTING,
INC. TO UPDATE THE PRELIMINARY COST ESTIMATE AND PEER
REVIEW FOR DEVELOPER FUNDED WATER IMPROVEMENTS

BACKGROUND:

In May 2005, West Valley Water District (District) and the Lytle Development Company (Lytle) entered into a Water Facilities and Service Agreement whereby Lytle was required to construct certain water facilities needed to support their development in exchange for a specified number of Hook-Up Rights. In August of that same year, Lytle entered into an agreement with Lennar Homes (Lennar) whereby Lytle transferred some of the water facility construction obligations to Lennar along with a specified number of Connection Rights.

Instead of constructing the water facilities assigned to them through the agreement with Lytle, Lennar requested that the District construct these projects in exchange for a one-time payment to the District to cover the costs of constructing the facilities. In order to estimate the infrastructure costs, Lennar enlisted the services of Murow CM to prepare a Preliminary Cost Estimate of the Water System Facilities.

The District reviewed the Preliminary Cost Estimate provided by Lennar and identified discrepancies in project descriptions from the original agreement and assumptions made in the evaluation. The District, wanting to perform it's own evaluation, contracted with Water Systems Consulting, Inc. (WSC) to perform an evaluation, prepare a preliminary Cost Estimate and perform a Peer Review for the Developer Funded Water Improvements. Upon completion of the preliminary Cost Estimate and Peer Review, a consensus of facilities to be constructed was not agreed upon.

DISCUSSION:

The District and Lennar would both like to finalize the obligations of the agreement and have begun discussions on facilities yet to be constructed. To assist in this effort, the District requested a proposal from WSC to update their preliminary cost estimates, as well as escalate previous costs to current construction costs. The proposal received from WSC to perform this service is attached as Exhibit A.

FISCAL IMPACT:

The fee to update the Preliminary Cost Estimate and Peer Review as outlined in the proposal is \$2,345.00. The update will be funded from the Engineering Department Budget (Professional Services/Other Consultants).

STAFF RECOMMENDATION:

It is recommended that the Engineering, Operations and Planning Committee approve Task Order No. 2 with WSC to update the Preliminary Cost Estimate and Peer Review in the amount of \$2,345.00 and have this item considered by the full Board of Directors at a future meeting.

Respectfully Submitted,

Clarence C. Mansell

Clarence C. Mansell Jr, General Manager

LJ:mm

ATTACHMENT(S):

1. Exhibit A - Proposal to Update the Preliminary Cost Estimate

EXHIBIT A



Linda Jadeski Engineering Services Manager West Valley Water District Delivered via Email

SUBJECT: PROPOSAL TO UPDATE PRELIMINARY COST ESTIMATES FOR THE PEER REVIEW OF A DEVELOPER FUNDED WATER IMPROVEMENTS

Dear Linda,

Water Systems Consulting, Inc. (WSC) is pleased to present the following proposal to update the preliminary cost estimates and contractor cost opinions for the draft peer review of developer funded water improvements in West Valley Water District's (WVWD's) service area that WSC previously submitted.

We understand that WVWD would like to update the preliminary cost estimates, as well as escalate previous costs to current costs. WVWD previously required a developer to fund and construct several water system improvements needed to support their development, including several pipelines, a reservoir, and a well. Some of the improvements are still outstanding and the developer has requested that WVWD accept responsibility for constructing the improvements, in exchange for a one-time payment from the developer to cover the capital cost of the improvements. Before entering into such an agreement, WVWD prudently requested an independent cost opinion and peer review of the developer's cost estimate to support WVWD's negotiations for this prospective agreement. WSC previously submitted draft cost opinions and a peer review of the developer's cost estimate and this project will update those costs estimates to incorporate changes and feedback from WVWD.

WSC has prepared the attached scope of work and fee estimate for the updated cost estimates. We anticipate we can deliver a Draft TM summarizing the results of the update within 2 weeks of receiving all of the supporting information.

If you have any questions, please contact Laine at (909) 483-3200 ext. 201 or by email at licarlson@wsc-inc.com.

Sincerely,

Water Systems Consulting, Inc.

Laine Carlson, PE Vice President

Attachment 1. Scope

Task 1.0PROJECT MANAGEMENT

1.1 Project Administration and Quality Control

- > WSC will prepare a monthly progress report to be submitted with the monthly invoice.
- WSC will perform comprehensive quality control reviews of deliverables before being sent to the District.
- > One (1) conference call meeting to discuss the updated cost estimates.

Task 2.0 UPDATE COST OPINIONS

2.1 Update Peer Review Cost Opinions

- Update peer review cost opinions for the five (5) projects listed below. The revised cost opinions will include updated contingency and project implementation markups, updated project quantities (i.e. updated pipeline lengths), and will be escalated to current dollar value using ENR Construction Cost Index. It is assumed that the updated markups and revised project quantities will be provided by the District.
 - (1) Project 7-5: Well 55 on Institution Road
 - (2) Project 7-6: 12" Pipeline from Well 55 to Reservoir at Filtration Facilities
 - (3) Project 7-7: 20" Pipeline from Glen Helen Turnout to Water Filtration Facilities
 - (4) Project 7-12: 20" Pipeline from Clearwater Parkway at Glen Helen Parkway to Reservoir 7-5
 - (5) Project 8-1: Reservoir 8-3

2.2 Update Developer Cost Estimates

Update developer cost estimates with revised project quantities and to current dollar values using the ENR Construction Cost Index.

2.3 Prepare Brief Technical Memorandum (TM)

- Update the previous draft TM summarizing updated Peer Review cost opinions and updated developer cost opinions.
- > Prepare a final TM incorporating the District's comments on the updated draft TM.
- > The draft and final TM will be delivered via email in pdf format.

Attachment 2. Fee Estimate

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	Expenses				'	•		1	•	•	•	1
	SC r Fee				\$ 0//	770 \$		588 \$	278 \$	710 \$	1,575 \$	2,345 \$
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WSC	WSC Labor Hours				4	4		3.5	1.5	4	6	13
	Project Administration	Kay Merrill	\$125		1	1					0	1
	Staff Engineer	Heather Freed	\$155		1	1		e	1	m	7	8
	Project Manager & OA/QC	Laine Carlson	\$245		2	2		5.0	0.5	1	2	4
ask No. Task Description			Billing rates, \$/hr	1 Project Management	1.1 Project Administration and Quality Control	SUBTOTAL	2 Update Cost Opinions	2.1 Updated Peer Review Cost Opinions	2.2 Update Developer Cost Estimates	2.3 Prepare Brief Technical Memorandum	SUBTOTAL	COLUMN TOTALS